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ABSTRACT

Compiled are abstracts and indexes to selected print and non-print materials related to wastewater treatment and water quality education and instruction, as well as materials related to pesticides, hazardous wastes, and public participation. Sources of abstracted/indexed materials include all levels of government, private concerns, and educational institutions. Title, author(s), publication date, cross-references, descriptors, and availability are provided for each entry. Also included are procedures to illustrate how instructors and curriculum developers in the water quality control field can locate instructional materials to meet very general or highly specific requirements of their programs. This publication supplements and does not replace "Water Quality Instructional Resources Information System (IRIS): A Compilation of Abstracts to Water Quality and Water Resources" or IRIS Supplements I-XVIII. (JN)

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Prepared by

EPA Instructional Resources Center
SMEAC Information Reference Center
The Ohio State University
1200 Chambers Road, Room 310
Columbus, OH 43212

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Grant No. T-901366010

WATER QUALITY INSTRUCTIONAL
RESOURCES INFORMATION SYSTEM (IRIS)

A Compilation of Abstracts
to Water Quality and Water
Resources Materials

Supplement XIX (1984)
October, 1984

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

Robert W. Howe

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

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Preface

This publication contains abstracts and indexes to selected materials related to wastewater treatment and water quality education and instruction. In addition, some materials related to pesticides, hazardous wastes, and public participation are included. Also included are procedures to illustrate how instructors and curriculum developers in the water quality control field can locate instructional materials to meet very general or highly specific requirements in their programs.

Supplements to this publication will be issued periodically.

For further information about these materials contact:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212

(614) 422-6717

I. General Information about Materials in IRIS.

A. What types of materials are included in IRIS?

The EPA Instructional Resources Center (water) acquires, reviews, indexes, and announces both print (books, modules, units, etc.) and non-print (films, slides, video tapes, etc.) materials related to water quality and water resources education and instruction.

Materials selected must be available from some source for announcement. When materials are not readily available we attempt to make the materials available through some national information service for easier acquisition. In a few cases the EPA Instructional Resources Center is the source of the materials.

B. How are materials entered into IRIS?

We request that people assist us in locating materials for the system. If you have materials you believe to be useful to others, please send two copies if possible to the:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212

Materials are reviewed by the project staff. Availability of the materials is checked, and the materials are abstracted and indexed. The abstract describes the contents of the material. The index terms (descriptors) are concepts or terms used to describe the contents and the form of the document. (See the Subject Index for a listing of those that have been used.) The index terms are useful for locating materials manually, such as with this compilation, and also by computer.

When items are processed they are entered on the IRIS (water) computer tape. This tape is maintained by the EPA Instructional Resources Center at The Ohio State University and is used for producing tapes for other information systems, publications, and for computer searches conducted at The Ohio State University.

C. How can a user locate materials in IRIS?

1. All materials placed in IRIS (water) collection.

Materials entered into the IRIS (water) collection can be located in two ways: (1) by manual search of this compilation and similar ones to follow and (2) by computer.

The first compilation contained resumes of selected materials processed for the previous IRIS (water) collection and resumes of selected materials of items added to the IRIS (water) collection. Copies are available for purchase from the EPA Instructional Resources Center for \$5.00

Quarterly updates of the compilation are available by subscription on a yearly basis beginning November, 1979. Information regarding an annual subscription to IRIS (water) Quarterly Compilations can be obtained by writing to the EPA Instructional Resources Center. A subscription to the quarterly supplements for 1984 is \$12.00 (within the U.S.). Price to Canada and Mexico is \$14.00. Prices in other Countries is \$18.00. Separate quarterly supplements are \$4.00 each.

The compilation and the quarterly supplements can be scanned and the subject index can be used for manual searches.

Computer tapes of the IRIS (water) collection can also be searched by both batch and on-line computer searches. The IRIS tapes are available for searching through CompuServe. Individuals or agencies with computer terminals and telephone connection equipment can subscribe to CompuServe and do their own searches if they desire.

Information regarding Dialog may be obtained by writing or phoning Dialog Information Retrieval Service, 3460 Hillview Avenue, Palo Alto, CA 94304, (415) 858-3775.

Information regarding CompuServe can be obtained from the EPA/IRC.

2. Materials placed in the Educational Resources Information System (ERIC)

A number of the materials processed for the IRIS (water) system are entered into the ERIC system and announced in Resources in Education (RIE). Resources in Education (RIE) is published monthly and is available from:

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402
(202) 783-3238

The current price is listed in the most recent issue of RIE. Check if a college or university library close to you has a copy. If they do not, contact the EPA Instructional Resources Center for assistance.

Many libraries subscribe to RIE. Materials announced in RIE can be searched manually each month by scanning RIE or by checking the index terms in the back of each issue. Materials announced in RIE can be searched by computer also. ERIC computer tapes may be purchased outright, but users can

access them through Dialog, BRS, CompuServe and Systems Development Corporation (Orbit). For the addresses of search services in your state that can search these databases, contact the:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212
(614) 422-6717

Most of the materials announced in RIE are available on microfiche (microfilm) at over 700 sites throughout the United States and the world. Users can view these materials on site at many locations to identify what they believe will be useful to them at no cost. Microfiche copies (or in most cases Xerox copies) can be ordered through the ERIC Document Reproduction Service. The address and order information is in the back of each issue of RIE. Xerox copies of many items related to water quality and resource education and training can also be ordered through the EPA Instructional Resources Center for \$0.06 per page plus \$1.00 per document.

For information about locations of ERIC microfiche sites in your state, contact the EPA Instructional Resources Center.

A number of journal articles processed for the IRIS (water) system are entered into the ERIC system and announced in Current Index to Journals in Education (CIJE).

Current Index to Journals in Education is published monthly and is available from:

ORYX Press
2214 North Central at Encanto
Phoenix, Arizona 85004
(602) 254-6156

Many libraries subscribe to CIJE. Materials announced in CIJE can be searched manually each month by scanning CIJE or by checking the index terms in the back of each issue. Materials announced in CIJE can be searched by computer also. Refer to the previous discussion of RIE concerning computer searches.

Materials announced in CIJE can be located in journals at many university libraries.

Many of the articles can be obtained from University Microfilms. Current prices are \$12.00 per article. Additional copies of the same article are \$2.25 each. For further information write to:

UMI Article Reprint Department
300 North Zeeb Road
Ann Arbor, Michigan 48106
(800) 521-0600

II. How to Use the Compilation

A. Description of Information in Resumes

Each resume is listed by EW number in numerical order in the resume section. Two samples of resumes are provided to explain the data fields in the resumes. Sample resume #1 is a sample resume of an item not entered into ERIC. Sample resume #2 is a sample resume of an item entered into ERIC; a few additional data elements are in these resumes and are explained.

1. Sample resume of materials not entered in ERIC

- a. IRIS NUMBER: EW006023
 - b. PUBLICATION DATE: FEB 81
 - c. TITLE: PROGRAMMED APPROACH TO WATER/MASS ANALYSES.
 - d. PERSONAL AUTHOR: SPENCE, GEORGE R., JR.
 - e. DESCRIPTOR: *DESIGN; *ENGINEERING; *EQUIPMENT; *MASS BALANCE; *PROJECT DESIGN; *POLLUTION ENGINEERING; *PIPES; *WATER RESOURCES
 - f. DESCRIPTIVE NOTE: 30-33P.
 - g. ABSTRACT: DURING THE ENGINEERING PHASE OF A PROJECT DESIGN, WATER REQUIREMENTS OFTEN CHANGE AS NEW INFORMATION BECOMES AVAILABLE. THIS ARTICLE DETAILS A PROGRAMMED APPROACH TO CALCULATION OF A WATER/MASS BALANCE WHICH PROVIDES THE USER WITH THE ABILITY TO READILY ASSESS THE IMPACT OF VARYING WATER QUALITIES, FLOW PATTERNS, AND FLOW RATES. THIS INFORMATION IS THEN USED IN DETERMINING PIPE AND EQUIPMENT SIZES.
 - h. AVAILABILITY: POLLUTION ENGINEERING; V13 N2
-
- a. IRIS NUMBER -- this is the identification number sequentially assigned to materials as they are processed. Gaps in numbers mean that some items have been deleted, are being processed to add new information, or have been delayed in processing for some reason.
 - b. PUBLICATION DATE -- date material was published according to information on the material.
 - c. TITLE
 - d. PERSONAL AUTHOR -- person or persons who wrote, compiled, or edited the material. Up to two personal authors can be listed.
 - e. DESCRIPTOR -- subject terms which characterize substantive contents and form of the materials. The major terms are preceded by an asterisk. Terms used to index all resumes in this compilation can be reviewed in the Subject Index.

- f. DESCRIPTIVE NOTE -- various items of information may be contained in this section. For print materials the number of pages is usually listed. The price of the material quoted is the last time information was received from the source. Please note: Prices of nearly all materials are subject to changes and may not be accurate at the time a person orders a specific item.
- g. ABSTRACT -- some early materials entered into IRIS did not have abstract information. All materials currently being entered into IRIS have an informative abstract that describes the contents of the item.
- h. AVAILABILITY -- information in this field indicates where the material can be obtained.

2. Sample resume of material entered into ERIC (Resources in Education)

Items entered into ERIC (Resources in Education) will have a few additional data fields.

IRIS ACCESSION NUMBER: EW006664
 PUBLICATION DATE: 80
 TITLE: RESOURCE DEVELOPMENT OF WATERSHED LANDS: A SIX WEEK SHORT COURSE.
 DESCRIPTOR: ADMINISTRATION; ECOLOGICAL FACTORS; ECONOMIC FACTORS; INSTRUCTIONAL MATERIALS; *LAND USE; NATURAL RESOURCES; *POST SECONDARY EDUCATION; *TECHNICAL EDUCATION; *WATER RESOURCES; HYDROLOGY; NATURAL RESOURCES MANAGEMENT; WATER QUALITY; *WATERSHEDS

- b. DESCRIPTIVE NOTE: EDRS PRICE: MF01 PLUS POSTAGE-NOT AVAILABLE IN HARD COPY DUE TO MARGINAL LEGIBILITY OF ORIGINAL DOCUMENT.

ABSTRACT: THIS COURSE WAS DESIGNED TO PROVIDE THE WATER RESOURCE TECHNICIAN OR MANAGER WITH INFORMATION WHICH WILL AID IN THE IMPLEMENTATION OF IMPROVEMENTS OF PRESENT LAND USE PRACTICES AND TO ILLUSTRATE ALTERNATIVE CONCEPTS AND TECHNIQUES IN LAND AND WATER USE FOR INCREASING AND IMPROVING THE MULTIPLE PRODUCTS OF

- a. WATERSHED LANDS. (ED 197 941)

AVAILABILITY: ERIC DOCUMENT REPRODUCTION SERVICE, P. O. BOX 190, ARLINGTON, VA 22210

- a. ERIC NUMBER -- the ED number indicates the document has been processed and entered into Resources in Education. This identification number is the number to use when ordering a document or when requesting information about a document.

- b. EDRS PRICE -- if material is available through the ERIC Document Reproduction Service, the price of the material when it was entered into the ERIC system and the form of the material is indicated. "MF" means microfiche; "HC" means Xerox copy. Prices are subject to change. Current prices of microfiche and paper copies are listed in the back of each issue of Resources in Education; consult the latest monthly issue for current prices. Information about ordering items can be obtained by contacting:

ERIC Document Reproduction Service (EDRS)
P. O. Box 190
Arlington, Virginia 22210
(703) 841-1212

Items that are available on microfiche (MF) are contained in microfiche collections at over 700 sites where they can be read. For information on the microfiche locations in your state contact the EPA Instructional Resources Center.

B. How to Locate Desired Materials

Users can identify materials of interest by scanning the resume listings, or using the Subject Index or Author Index.

1. Subject Index

The Subject Index is designed to enable the user to search for information on either a broad subject or a narrow information concern. An EW number is included for each item listed under the subject heading. The EW number refers to the abstract entry in the resume section where complete bibliographic information, an abstract of the item, and availability information can be found.

A user can also coordinate a search by checking EW numbers that appear under two or more subject headings. For example, you could check all the EW numbers under Water Treatment and all the EW numbers under Films. EW numbers included under both subject headings would include information relevant to Water Treatment that were films. EW numbers under wastewater treatment and laboratory techniques would provide a list of materials related to Laboratory Techniques and to Wastewater Treatment. Similar techniques could be used to identify other information desired.

Users with ERIC microfiche should check the resume entry. If the document is available on microfiche from the ERIC Document Reproduction Service, the availability will be indicated by "MF" on the resume by "EDRS Price." This means libraries with ERIC microfiche collections should have the document on microfiche.

If you want a document available through the ERIC Document Reproduction Service (EDRS) see the section on ordering documents.

2. Author Index

If you desire to locate a document by the name of the author, you can use the Author Index. EW numbers are provided under the author in the Author Index as in the Subject Index. Some documents do not have a listed author; hence, they are not listed in this index.

III. Correcting an Existing IRIS Record

The IRIS data base will be updated on a quarterly basis. Corrections will be made to the data base at those times. You can help improve IRIS by sending corrections for items you find to be in error.

We request that you duplicate (copy) the resume from the compilation, mark the information you believe to be wrong (or incomplete), and send the marked resume to:

EPA Instructional Resources Center
1200 Chambers Road, Room 310
Columbus, Ohio 43212
(614) 422-6717

Corrections of errors will occur in the IRIS tapes at the next update after comments are received.

If you have difficulty obtaining materials from the listed source in the AVAILABILITY section of the resume, please let us know. We will contact the sources to verify whether the materials are available, but your assistance will provide corrections between annual availability checks.

If you are the supplier of materials in IRIS, please let us know if you remove a product from your list, modify a product on your list, or change the price of the product.

IV. Requests to Receive Information about IRIS and the IRC Bulletin

Information regarding IRIS, materials in IRIS, and modifications in the system will be announced in the IRC Bulletin. The Bulletin is issued about six times a year as information is available.

If you are not on the mailing list write to the EPA Instructional Resources Center. Limited numbers of some back issues are still available.

If you need information about IRIS you can also phone (614) 422-6717 with your questions.

V. Requests for Assistance in Using IRIS

A. Assistance in use of IRIS manuals

If you need help in using the IRIS manuals, phone (614) 422-6717 or write to the EPA Instructional Resources Center. Staff are normally available from about 8:30 a.m. to 4:30 p.m. Eastern time to answer your questions.

B. Assistance in accessing IRIS by computer

1. Conducting searches.

See section VII.

2. Subscribing to CompuServe for computer searching of IRIS.

Contact: CompuServe
5000 Arlington Centre Boulevard
P.O. Box 20212
Columbus, OH 43220
(614) 457-8600

3. Contacting a computer search service (an agency that will conduct a search for you, usually for a fee.)

The EPA Instructional Resources Center maintains a list of agencies that can conduct searches. Most charge a fee, though some are free to qualified users in a limited geographical area.

Phone or write to obtain information for your area.

VI. How to Locate Other Relevant Educational Materials

A number of people have requested information related to such areas as management, basic skills (reading, mathematics, writing) human relations, contract negotiations, and other topics. The EPA Instructional Resources Center is developing some user service products in selected areas.

Another excellent source of information for many educational concerns is the ERIC System.

ERIC is a national information system designed and developed by the U.S. Office of Education, and now supported and operated by the National Institute of Education (NIE), for providing ready access to descriptions of exemplary programs, research and development efforts, and related information that can be used in developing more effective educational programs.

There are 16 Clearinghouses in the nationwide ERIC network. Each specializes in a different, multi-discipline, educational area. Each searches out pertinent documents.

The ERIC Clearinghouses have responsibility within the network for acquiring the significant educational literature within their particular areas, selecting the highest quality and most relevant material, processing (i.e., cataloging, indexing, abstracting) the selected items for input to the data base, and also for providing information analysis products and various user services based on the data base.

The 16 ERIC Clearinghouses are listed on the next few pages, together with addresses, telephone numbers, and brief scope notes describing the areas they cover. You can contact them for assistance in locating information relevant to their scope notes.

A. ERIC Clearinghouse on Adult, Career, and Vocational Education

The Ohio State University

National Center for Research in Vocational Education

1960 Kenny Road

Columbus, Ohio 43210

Telephone: (614) 486-3655

Career education, formal and informal at all levels, encompassing attitudes, self-knowledge, decision-making skills, general and occupational knowledge, and specific vocational and occupational skills; adult and continuing education, formal and informal, relating to occupational, family, leisure, citizen, organizational, and retirement roles; vocational and technical education, including new sub-professional fields, industrial arts, and vocational rehabilitation for the handicapped.

B. ERIC Clearinghouse on Counseling and Personnel Services

University of Michigan
School of Education, Room 2108
Ann Arbor, Michigan 48109
Telephones: (313) 764-9492

Preparation, practice, and supervision of counselors at all educational levels and in all settings, theoretical development of counseling and guidance, use and results of personnel procedures such as testing, interviewing, disseminating; and analyzing such information, group work and case work; nature of pupil, student, and adult characteristics; personnel workers and their relation to career planning, family consultations, and student orientation activities.

C. ERIC Clearinghouse on Elementary and Early Childhood Education

University of Illinois
College of Education
805 West Pennsylvania Avenue
Urbana, Illinois 61801
Telephone: (217) 333-1386

Prenatal factors, parental behavior; the physical, psychological, social, educational, and cultural development of children from birth through the primary grades; educational theory, research and practice related to the development of young children.

D. ERIC Clearinghouse on Educational Management

University of Oregon
Library, Room 108
Eugene, Oregon 97403
Telephone: (503) 686-5043

Leadership, management, and structure of public and private educational organizations; practice and theory of administration; preservice and inservice preparation of administrators, tasks and processes of administration, methods and varieties of organization, organizational change, and social context of the organization.

Sites, buildings, and equipment for education; planning, financing, constructing, renovating, equipping, maintaining, operating, insuring, utilizing, and evaluating educational facilities.

- E. ERIC Clearinghouse on Handicapped and Gifted Children
 Council for Exceptional Children
 1920 Association Drive
 Reston, Virginia 22091
 Telephone: (703) 620-3660

Aurally handicapped, visually handicapped, mentally handicapped, physically handicapped, emotionally disturbed, speech handicapped, learning disabilities, and the gifted; behavioral, psychomotor, and communication disorders, administration of special education services; preparation and continuing education of professional and paraprofessional personnel; preschool learning and development of the exceptional; general studies on creativity.

- F. ERIC Clearinghouse on Higher Education
 George Washington University
 One Dupont Circle, NW, Suite 630
 Washington, DC 20036
 Telephone: (202) 296-2597

Various subjects relating to college and university students, college and university conditions and problems, college and university programs; curricular and instructional problems and programs, faculty, institutional research; federal programs, professional education (medical, law, etc.), graduate education, university extension programs, teaching-learning, planning, governance, finance, evaluation, interinstitutional arrangements, and management of higher educational institutions.

- G. ERIC Clearinghouse on Information Resources
 Syracuse University
 School of Education
 Huntington Hall
 150 Marshall Street
 Syracuse, New York 13210
 Telephone: (315) 423-3640

Management, operation, and use of libraries; the technology to improve their operation and the education, training, and professional activities of librarians and information specialists. Educational techniques involved in microteaching, systems analysis, and programmed instruction employing audiovisual teaching aids and technology, such as television, radio, computers, and cable television, communication satellites, microforms, and public television.

- H. ERIC Clearinghouse for Junior Colleges
 University of California at Los Angeles (UCLA)
 Mathematical Sciences Building, Room 8118
 405 Hilgard Avenue
 Los Angeles, California 90024
 Telephone: (213) 825-3931

Development, administration, and evaluation of public and private community junior colleges. Junior college students, staff, curricula, programs, libraries, and community services.

- I. ERIC Clearinghouse on Languages and Linguistics
 Center for Applied Linguistics
 3520 Prospect Street, NW
 Washington, DC 20007
 Telephone: (202) 298-9292

Languages and linguistics. Instructional methodology, psychology of language learning, cultural and intercultural content, application of linguistics, curricular problems and developments, teacher training and qualifications, language sciences, psycholinguistics, theoretical and applied linguistics, language pedagogy, bilingualism, and commonly taught languages including English and speakers of other languages.

- J. ERIC Clearinghouse on Reading and Communication Skills
 National Council of Teacher of English
 1111 Kenyon Road
 Urbana, Illinois 61801
 Telephone: (217) 328-3870

Reading, English, and communication skills, preschool through college. Educational research and development in reading, writing, speaking, and listening. Identification, diagnosis, and remediation of reading problems. Speech communication--forensics, mass communication, interpersonal and small group interaction, interpretation, rhetorical and communication theory, instruction development, speech sciences, and theater. Preparation of instructional staff and related personnel in these areas.

All aspects of reading behavior with emphasis on physiology, psychology, sociology, and teaching. Instructional materials, curricula, tests and measurement, preparation of reading teachers and specialists, and methodology at all levels. Role of libraries and other agencies in fostering and guiding reading. Diagnostic and remedial services in school and clinical settings.

K. ERIC Clearinghouse on Rural Education and Small Schools

New Mexico State University
Box 3AP
Las Cruces, New Mexico 88003
Telephone: (505) 646-2623

Education of Indian Americans, Mexican Americans, Spanish Americans, and migratory farm workers and their children; outdoor education; economic, cultural, social, or other factors related to educational programs in rural areas and small schools; disadvantaged of rural and small school populations.

L. ERIC Clearinghouse for Science, Mathematics and Environmental Education

The Ohio State University
1200 Chambers Road - Room 310
Columbus, Ohio 43212
Telephone: (614) 422-6717

All levels of science, mathematics, and environmental education; development of curriculum and instructional materials; media applications; impact of interest, intelligence, values, and concept development upon learning; preservice and inservice teacher education and supervision.

M. ERIC Clearinghouse for Social Studies/Social Science Education

Social Science Education Consortium, Inc.
855 Broadway
Boulder, Colorado 80302
Telephone: (303) 492-8434

All levels of social studies and social science; all activities relating to teachers; content of disciplines; applications of learning theory, curriculum theory, child development theory, and instructional theory; research and development programs; special needs of student groups; education as a social science; social studies/social science and the community.

N. ERIC Clearinghouse on Teacher Education

American Association of Colleges for Teacher Education (AACTE)
One Dupont Circle, NW, Suite 610
Washington, DC 20036
Telephone: (202) 293-2450

School personnel at all levels, all issues from selection through preservice and inservice preparation and training to retirement; curricula, educational theory and philosophy; general education not specifically covered by Educational Management Clearinghouse; Title XI NDEA Institutes not covered by subject speciality in other ERIC Clearinghouses; all aspects of physical education.

- O. ERIC Clearinghouse on Tests, Measurement, and Evaluation
Educational Testing Service (ETS)
 Rosedale Road
 Princeton, New Jersey 08541
 Telephone: (609) 734-5176

Tests and other measurement devices; evaluation procedures and techniques; application of tests, measurement, or evaluation in educational projects of programs.

- P. ERIC Clearinghouse on Urban Education
Teachers College, Columbia University
Institute for Urban and Minority Education
 Box 40
 525 West 120th Street
 New York, New York 10027
 Telephone: (212) 678-3433

The relationship between urban life and schooling; the effect of urban experiences and environments from birth onward; the academic, intellectual, and social performance of urban children and youth from grade three through college entrance (including the effect of self concept, motivation, and other affective influences); education of urban, Puerto Rican and Asian American populations, and rural and urban black populations; programs and practices which provide learning experiences designed to meet the special needs of diverse populations served by urban schools and which build upon their unique as well as their common characteristics, structural changes in the classroom, school, school system, and community and innovative instructional practices which directly affect urban children and youth; programs, practices, and materials related to economic and ethnic discrimination, segregation, desegregation, and integration in education; issues, programs, practices, and materials related to redressing the curriculum imbalance in the treatment of ethnic minority groups.

- Q. Educational Resources Information Center
Central ERIC
National Institute of Education (NIE)
Information Resources Division
 1200 - 19th Street, NW
 Washington, DC 20208
 Telephone: (202) 254-5500

There are other sources of educational information in many states. Included are information dissemination units in the state departments of education, intermediate education units, and local education units. In many cases, a local school administrator or school librarian can help you locate assistance.

VII. How to Structure a Computer Search of IRIS

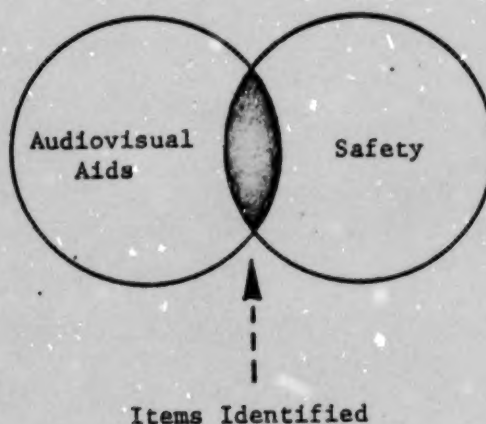
This explanation relates to the IRIS data base that can be searched through CompuServe.

A few notes about the service are important. The following fields are searchable by computer: (1) Authors, (2) Title, and (3) Subject index terms.

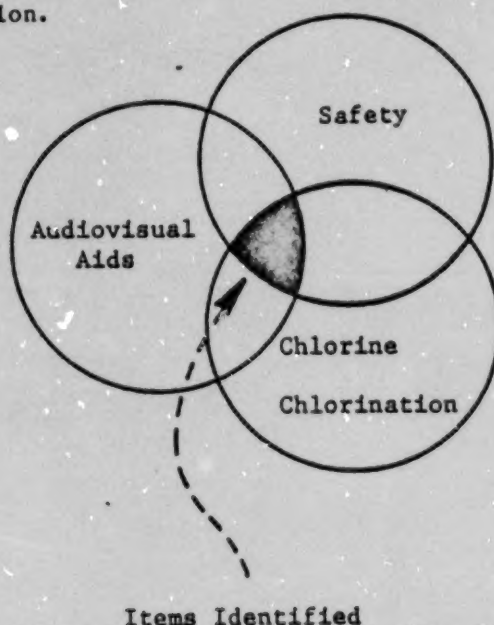
If you submit a search of IRIS through CompuServe, the program can search for the words you select in three fields. These fields are: (1) title field, (2) subject index field, and (3) author field. Several sample searches are listed below and on the following pages.

A. Sample 1

If you want to locate audiovisual aids that relate to safety you would submit a search with audiovisual aids and safety. Materials that included the terms both audiovisual aids and safety in the subject index field would be identified by computer.

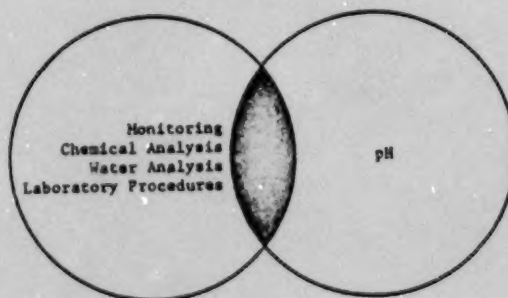


The computer program can tell you the number of items and the title of the items. If you were primarily interested in audiovisual aids, safety, and chlorine you would submit a search of these three terms. You might want to include chlorides and chlorination as well as chlorine in the search. This search would identify materials that contained audiovisual aids, safety, and one or more of the words, chlorine and chlorination.



B. Sample 2

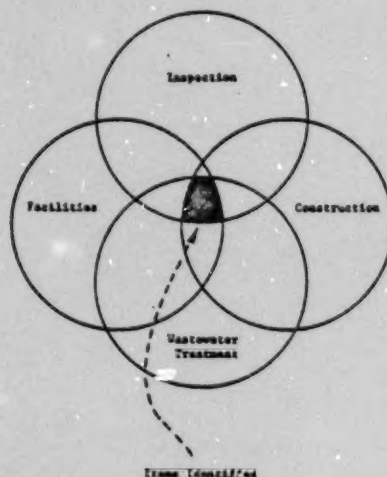
If you want to identify materials related to monitoring, you should include several related terms and the chemical, material, or situation that is being monitored. See the example below.



This search would identify all the items that included any of the terms on the left and pH.

C. Sample 3

If you are interested in materials related to inspection and construction you could conduct a search of these two terms. The search would identify all materials that included both terms. If you were interested in only wastewater treatment facilities you could construct a search as diagrammed.



This search would yield specific materials and demonstrates how a computer search can help you locate materials you want.

The subject index in the IRIS compilations can also be used to help you select words to include in a search. Words listed in the subject index are certain to be in the subject field. Therefore, selecting these terms to use in structuring a search will increase the probability of locating materials.

VIII. How to Order Materials

The AVAILABILITY field in the resume indicates where materials can be obtained. A few of the sources are explained.

- A. A number of audiovisual materials can be obtained on a rental basis or purchased from the EPA Instructional Resources Center. Most items previously available from the NTOTC office are available from the EPA Instructional Resources Center at The Ohio State University. For further information write or call.

- B. Some of the materials are available through the ERIC Document Reproduction Service. MF (microfiche) are 4" x 6" sheets of microfilm; up to 96 pages of text can be reproduced on one sheet. HC (paper copy) is a reproduction of the document in paper form at the original size.

Order forms for these materials can be obtained from:

ERIC Document Reproduction Service
P. O. Box 190
Arlington, Virginia 22210
(703) 841-1212

- C. The EPA Instructional Resources Center will provide Xerox copies of materials that are not copyrighted for \$1.00 per document plus \$0.06 per page.

If you can not obtain materials that are listed or have difficulty obtaining materials, please contact the EPA Instructional Resources Center. We can provide assistance in obtaining materials from some sources. If materials become unavailable, we will remove them from the IRIS data base.

RESUME SECTION

IRIS ACCESSION NUMBER: EW007885

PUBLICATION DATE: DEC 81

TITLE: WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION SYSTEM (IRIS): A COMPILATION OF ABSTRACTS TO WATER QUALITY. SUPPLEMENT VIII.

DESCRIPTOR: *AUDIOVISUAL AIDS; CITIZEN PARTICIPATION; INDEXES; *INSTRUCTIONAL MATERIALS; PESTICIDES; POSTSECONDARY EDUCATION; TECHNOLOGY; WASTE DISPOSAL; *WASTE WATER; WATER; WATER POLLUTION; *WATER QUALITY; *WATER RESOURCES; *WATER TREATMENT; *WASTEWATER TREATMENT; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER)

DESCRIPTIVE NOTE: 177P. SUBSCRIPTION: \$12.00; \$4.00 EACH.

ABSTRACT: COMPILED ARE ABSTRACTS AND INDEXES TO SELECTED PRINT AND NON-PRINT MATERIALS RELATED TO WASTEWATER TREATMENT AND WATER QUALITY EDUCATION AND INSTRUCTION, AS WELL AS MATERIALS RELATED TO PESTICIDES, HAZARDOUS WASTES, AND PUBLIC PARTICIPATION. SOURCES OF ABSTRACTED/INDEXED MATERIALS INCLUDE ALL LEVELS OF GOVERNMENT, PRIVATE CONCERNS, AND EDUCATIONAL INSTITUTIONS. TITLE, AUTHOR(S), PUBLICATION DATE, CROSS-REFERENCES, DESCRIPTORS, AND AVAILABILITY ARE PROVIDED FOR EACH ENTRY. ALSO INCLUDED ARE PROCEDURES TO ILLUSTRATE HOW INSTRUCTORS AND CURRICULUM DEVELOPERS IN THE WATER QUALITY CONTROL FIELD CAN LOCATE INSTRUCTIONAL MATERIALS TO MEET VERY GENERAL OR HIGHLY SPECIFIC REQUIREMENTS OF THEIR PROGRAMS. THIS PUBLICATION SUPPLEMENTS AND DOES NOT REPLACE "WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION SYSTEM (IRIS): A COMPILATION OF ABSTRACTS TO WATER QUALITY AND WATER RESOURCES MATERIALS" OR IRIS SUPPLEMENTS I-VII.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW007886

PUBLICATION DATE: AUG 81

TITLE: ANEROBIC DIGESTION. SELECTED INSTRUCTIONAL ACTIVITIES AND REFERENCES. INSTRUCTIONAL RESOURCES MONOGRAPH SERIES.

PERSONAL AUTHOR: TOWNSEND, ROBERT D.

DESCRIPTOR: *JOB SKILLS; *JOB TRAINING; POSTSECONDARY EDUCATION; QUALITY CONTROL; TECHNICAL EDUCATION; *WASTE DISPOSAL; WATER POLLUTION; *WATER RESOURCES; *INSTRUCTIONAL MATERIALS; *OPERATIONS (WASTEWATER); *ANAEROBIC DIGESTION; SLUDGE; *WASTEWATER TREATMENT; WATER QUALITY

DESCRIPTIVE NOTE: 205P. PRICE: \$5.50

ABSTRACT: FOCUSING SPECIFICALLY ON THE WASTEWATER TREATMENT PROCESS OF ANAEROBIC DIGESTION, THIS DOCUMENT IDENTIFIES INSTRUCTIONAL AND REFERENCE MATERIALS FOR USE BY PROFESSIONALS IN THE FIELD IN THE DEVELOPMENT AND IMPLEMENTATION OF NEW PROGRAMS OR IN THE UPDATING OF EXISTING PROGRAMS. IT IS DESIGNED TO HELP TRAINERS, PLANT

OPERATORS, EDUCATORS, ENGINEERS, CONSULTANTS, AND STUDENTS EFFICIENTLY IDENTIFY AND LOCATE SPECIFIC INSTRUCTIONAL MATERIALS. PART I PRESENTS A BRIEF DESCRIPTION OF THE ANAEROBIC DIGESTION PROCESS IN WASTEWATER TREATMENT OPERATIONS. PART II PROVIDES ELEVEN SELECTED CHAPTERS OR SECTIONS FROM RESOURCE PUBLICATIONS AND OTHER INSTRUCTIONAL MATERIALS WHICH ARE REPRESENTATIVE OF MATERIALS CURRENTLY AVAILABLE. PART III CONTAINS ABSTRACTS OF OTHER PERTINENT INSTRUCTIONAL MATERIALS WHICH MAY SUPPLEMENT THOSE IN PART II. THE FINAL SECTION ALPHABETICALLY LISTS BIBLIOGRAPHIC CITATIONS, MOSTLY FROM TECHNICAL AND SCIENTIFIC JOURNALS, OF ADDITIONAL RESOURCES WHICH TEND TO BE HIGHLY SPECIFIC AND MORE TECHNICAL IN NATURE.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW016323

PUBLICATION DATE: DEC 83

TITLE: WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION SYSTEM (IRIS) SUPPLEMENT XVI.

DESCRIPTOR: *AUDIOVISUAL AIDS; PUBLIC PARTICIPATION; INDEXES; INFORMATION DISSEMINATION; *INSTRUCTIONAL MATERIALS; PESTICIDES; POSTSECONDARY EDUCATION; TECHNOLOGY; WASTE DISPOSAL; *WASTEWATER; WATER; WATER POLLUTION; *WATER QUALITY; *WATER RESOURCES; *WATER TREATMENT; *WASTEWATER TREATMENT; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER)

DESCRIPTIVE NOTE: PRICE: \$4.00

ABSTRACT: COMPILED ARE ABSTRACTS AND INDEXES TO SELECTED PRINT AND NON-PRINT MATERIALS RELATED TO WASTEWATER TREATMENT AND WATER QUALITY EDUCATION AND INSTRUCTION, AS WELL AS MATERIALS RELATED TO PESTICIDES, HAZARDOUS WASTES, AND PUBLIC PARTICIPATION. SOURCES OF ABSTRACTED/INDEXED MATERIALS INCLUDE ALL LEVELS OF GOVERNMENT, PRIVATE CONCERNS, AND EDUCATIONAL INSTITUTIONS. TITLE, AUTHOR(S), PUBLICATION DATE, CROSS-REFERENCES, DESCRIPTORS, AND AVAILABILITY ARE PROVIDED FOR EACH ENTRY. THIS PUBLICATION SUPPLEMENTS AND DOES NOT REPLACE "WATER QUALITY INSTRUCTIONAL RESOURCES INFORMATION SYSTEM (IRIS): A COMPILATION OF ABSTRACTS TO WATER QUALITY AND WATER RESOURCES MATERIALS" OR IRIS SUPPLEMENTS I-15.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, THE OHIO STATE UNIVERSITY, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW010801

PUBLICATION DATE: MAR 84

TITLE: THE SYNERGISM OF OD AND SUPERVISORY DEVELOPMENT.

PERSONAL AUTHOR: ALPANDER, GUVENC G.

DESCRIPTOR: *ATTITUDES; *BEHAVIOR; *LEADERSHIP;

*MANAGEMENT; *ORGANIZATIONAL CLIMATE; *PLANNING;
*SUPERVISION; *SUPERVISORY BEHAVIOR; *TRAINING

DESCRIPTIVE NOTE: 26-29P.

ABSTRACT: SUPERVISORS DON'T OPERATE IN A VACUUM, ALTHOUGH MANY TRADITIONAL TRAINING PROGRAMS SEEM TO MAKE THAT ASSUMPTION. TREATING ORGANIZATIONAL CLIMATE AND SUPERVISORY BEHAVIOR SIMULTANEOUSLY IS A MORE REALISTIC AND EFFECTIVE APPROACH. THIS ARTICLE PROVIDES SOME SUGGESTIONS BASED ON A COMPANY SURVEY AND A PROGRAM TO CORRECT PROBLEMS.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V38 N3

IRIS ACCESSION NUMBER: EW010802

PUBLICATION DATE: MAR 84

TITLE: PROOF THAT SUPERVISORY TRAINING WORKS!

PERSONAL AUTHOR: DEL CAIZO, EDWARD

DESCRIPTOR: *COSTS; *EVALUATION; *PERFORMANCE EVALUATION;
*SUPERVISORS; *SUPERVISION; *TRAINING

DESCRIPTIVE NOTE: 30-31P.

ABSTRACT: DESCRIBED IS A STEP-BY-STEP METHOD FOR PROVING TO MANAGEMENT THE VALUE OF INVESTING IN SUPERVISORY TRAINING.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V38 N3

IRIS ACCESSION NUMBER: EW010803

PUBLICATION DATE: MAR 84

TITLE: FREE TO CHANGE.

PERSONAL AUTHOR: BRAMLETTE, CARL A., JR.

DESCRIPTOR: *LEADERSHIP; *MANAGEMENT; *MODELS;
*ORGANIZATIONS; *ORGANIZATIONAL CHANGE; *PLANNING;
*SUPERVISORS; *SUPERVISORY ROLE; *SUPERVISORY STYLE

DESCRIPTIVE NOTE: 32-40P.

ABSTRACT: PROVIDED IS A MODEL FOR TRACKING THE EVOLUTION OF AN ORGANIZATION AND A SUPERVISORS' APPROPRIATE ROLE AT EACH STAGE OF DEVELOPMENT.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V38 N3

IRIS ACCESSION NUMBER: EW010804

PUBLICATION DATE: MAR 84

TITLE: AN UNEASY LOOK AT BEHAVIOR MODELING.

PERSONAL AUTHOR: PERRY, SCOOT B.; REICH, LEAH R.

DESCRIPTOR: *BEHAVIOR; *BEHAVIOR MODELING; *EVALUATION;
*INSTRUCTION; *MANAGEMENT; *TRAINING

DESCRIPTIVE NOTE: 57-62P.

ABSTRACT: PRESENTED IS A BALANCED ASSESSMENT OF THE STRENGTHS AND WEAKNESSES OF BEHAVIOR MODELING.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V38 N3

IRIS ACCESSION NUMBER: EW010805

PUBLICATION DATE: MAR 84

TITLE: WHEN TO USE COGNITIVE MODELING.

PERSONAL AUTHOR: HARMON, PAUL; EVANS, KAY

DESCRIPTOR: *CASE STUDIES; *COGNITIVE MODELING;
*INSTRUCTION; *MODELING; *SKILL DEVELOPMENT; *TRAINING

DESCRIPTIVE NOTE: 67-68P.

ABSTRACT: DESCRIBED IS COGNITIVE MODELING AND SUGGESTIONS FOR ITS USE.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V38 N3

IRIS ACCESSION NUMBER: EW010862

PUBLICATION DATE: NOV 83

TITLE: ASBESTOS FIBER DETERMINATION IN WATER SAMPLES: PREPARATION TECHNIQUES, IMPROVED ANALYTICAL METHOD, AND RAPID SCREENING.

PERSONAL AUTHOR: CHATFIELD, E. J.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ASBESTOS; *DRINKING WATER; *PERFORMANCE EVALUATION; *RESEARCH; *SAMPLE PREPARATION; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: NOTE: THIS IS DIVIDED INTO THREE REPORTS: PB83-262915 (RAPID SCREENING); PB83-261651 (IMPROVED ANALYTICAL METHOD; AND PB83-260471 (PREPARATION TECHNIQUES).

ABSTRACT: A THREE-YEAR STUDY WAS CONDUCTED TO IMPROVE THE ANALYTICAL METHOD FOR DETERMINATION OF ASBESTOS FIBER CONCENTRATIONS IN WATER SAMPLES. THE RESEARCH PRODUCED AN IMPROVED SAMPLE PREPARATION AND ANALYSIS METHODOLOGY AND AN ALTERNATIVE METHOD WITH THE POTENTIAL FOR ROUTINELY SCREENING DRINKING WATER SAMPLES FOR ASBESTOS. RESULTS OF THE RESEARCH ARE REPORTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW010868

PUBLICATION DATE: NOV 83

TITLE: EFFECT OF ANIMAL GRAZING ON WATER QUALITY OF NONPOINT RUNOFF IN THE PACIFIC NORTHWEST.

PERSONAL AUTHOR: SAXTON, KEITH E.; AND OTHERS

DESCRIPTOR: AGRICULTURE; *ANIMAL GRAZING; BACTERIA; CATTLE; CHEMICALS; EROSION; *NONPOINT SOURCE POLLUTION; *PACIFIC NORTHWEST; *RESEARCH; WATERSHEDS; *WATER QUALITY

DESCRIPTIVE NOTE: NOTE: PB83-245225

ABSTRACT: THE PURPOSE OF THIS STUDY WAS TO DOCUMENT WATER QUANTITY AND QUALITY VARIABLES OVER A PERIOD OF THREE YEARS FROM A SMALL WATERSHED IN THE PACIFIC NORTHWEST. RESULTS OF THE RESEARCH ARE REPORTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011026

PUBLICATION DATE: 83

TITLE: HEALTH AND SAFETY IN THE WATER INDUSTRY.

DESCRIPTOR: *ACCIDENT PREVENTION; *CONFERENCE PROCEEDINGS; *HEALTH; *LEGISLATION; *POLICIES; *REGULATIONS; *SAFETY; *TRAINING; *WATER INDUSTRY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 29P. PRICE: \$5.00 NON-MEMBERS; \$3.75 MEMBERS

ABSTRACT: HEALTH AND SAFETY IN THE WATER INDUSTRY PRESENTS THE PAPERS AND REPORTED DISCUSSION OF A SYMPOSIUM HELD IN THE UNIVERSITY OF READING IN APRIL, 1983. PAPERS INCLUDE: "REGULATION AND SELF-REGULATION IN HEALTH AND SAFETY," "HEALTH AND SAFETY IN THE WATER INDUSTRY," "OPERATIONAL SAFETY STANDARDS IN SEWERAGE AND SEWAGE DISPOSAL," AND "TRAINING FOR CONFINED SPACE WORK (WITHOUT BREATHING APPARATUS)." IN ADDITION, THE HEALTH AND SAFETY LEGISLATION AND THE ROLE OF THE HEALTH AND SAFETY EXECUTIVE ARE SUMMARIZED. AND THE NEED FOR THE IMPLEMENTATION OF SAFETY POLICIES BASED ON A CRITICAL APPRAISAL OF AN ORGANIZATION'S ACTIVITIES AND FOR ACCIDENT MONITORING AND REPORTING ARE DISCUSSED.

AVAILABILITY: THE INSTITUTE OF WATER POLLUTION CONTROL, LEDSON HOUSE, 53 LONDON ROAD, MAIDSTONE, KENT. ME16 8JH, ENGLAND

IRIS ACCESSION NUMBER: EW011060

PUBLICATION DATE: MAY 84

TITLE: SAVING WATER IN A DESERT CITY.

PERSONAL AUTHOR: MARTIN, WILLIAM E.; AND OTHERS

DESCRIPTOR: *ARIZONA; *CASE STUDIES; *CONSERVATION; *COSTS; *MANAGEMENT; *MUNICIPALITIES; *NATURAL RESOURCES; *POLICIES; *PLANNING; *WATER COSTS; *WATER QUALITY; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 128P. \$10.00 PAPERBACK

ABSTRACT: THIS BOOK IS WRITTEN ABOUT TUCSON, ARIZONA. EXAMINED ARE THE RECENT HISTORY OF MUNICIPAL WATER MANAGEMENT AND USE AND THE CONTRADICTIONS AND AMBIGUITIES OF PERCEPTIONS AND POLICIES THAT AFFECTED THAT HISTORY. THE AUTHORS ARGUE THAT MANAGERS AND CUSTOMERS CAN LEARN FROM THE EXAMPLE OF TUCSON AND AVOID SIMILAR HARDSHIPS.

AVAILABILITY: RESOURCES FOR THE FUTURE, P.O. BOX 4852, HAMPDEN STATION, BALTIMORE, MD 21211

IRIS ACCESSION NUMBER: EW011077

PUBLICATION DATE: MAY 84

TITLE: LIFETIME EDUCATION FOR ENGINEERS BY PURDUE.

PERSONAL AUTHOR: DANNA, SAMMY R.

DESCRIPTOR: *CONTINUING EDUCATION; *ENGINEERS; *ENGINEERING EDUCATION; *HIGHER EDUCATION; *INSTRUCTION; *INSTRUCTIONAL TELEVISION; *PROGRAM DESCRIPTIONS; *PURDUE UNIVERSITY; *TELEVISION

DESCRIPTIVE NOTE: 100, 102-05P.

ABSTRACT: THIS ARTICLE DESCRIBES HOW PURDUE UNIVERSITY MAKES CONTINUING EDUCATION AVAILABLE TO ENGINEERS BY TELEVISION. THE OPERATION OF THE PROGRAM IS DESCRIBED INCLUDING POLICIES, EQUIPMENT, AND FACILITIES.

AVAILABILITY: E-I TV; V16 N5

IRIS ACCESSION NUMBER: EW011078

PUBLICATION DATE: MAY 84

TITLE: THE VIDEO PROJECTOR COMES OF AGE.

PERSONAL AUTHOR: BROOKS, ROBERT J.

DESCRIPTOR: *AUDIOVISUAL AIDS; *TELEVISION; *TELEVISION PROJECTORS; *TRENDS

DESCRIPTIVE NOTE: 108, 111P.

ABSTRACT: DESCRIBED IS THE USE OF A LARGE-SCREEN VIDEO PROJECTOR. REASONS FOR INCREASED USE ARE CONSIDERED. CASE STUDIES ARE ALSO INCLUDED.

AVAILABILITY: E-I TV; V16 N5

IRIS ACCESSION NUMBER: EW011087

PUBLICATION DATE: JUN 84

TITLE: WHEN LEADERS DEVELOP THEMSELVES.

PERSONAL AUTHOR: ANDERSON, JAMES G.

DESCRIPTOR: *LEADERSHIP; *MANAGERS; *PERSONNEL; *TRAINING

DESCRIPTIVE NOTE: 18-22P.

ABSTRACT: THIS ARTICLE DESCRIBES A LEADERSHIP TRAINING APPROACH DESIGNED TO AFFECT LEADERSHIP BEHAVIOR DEMONSTRABLY. IT PROVIDES A PLAN TO HELP PARTICIPANTS APPLY WHAT THEY HAVE LEARNED IN THE WORK SETTING.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V38 N6

IRIS ACCESSION NUMBER: EW011088

PUBLICATION DATE: JUN 84

TITLE: TIME OUT FOR STRESS MANAGEMENT TRAINING.

PERSONAL AUTHOR: KINDLER, HERBERT S.

DESCRIPTOR: *MANAGEMENT; *PERSONNEL; *STRESS; *STRESS MANAGEMENT; *TRAINING

DESCRIPTIVE NOTE: 64-66P.

ABSTRACT: DESCRIBED ARE STRESS MANAGEMENT STRATEGIES FOR VARIOUS PERSONNEL. THE PLAN EMPHASIZES INDIVIDUAL GOALS, ENCOURAGING STAFF CHANGES, MAKING PHYSICAL POSITIVE CHANGES WHEN NEEDED, AND REINFORCING POSITIVE CHANGE.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V38 N6

IRIS ACCESSION NUMBER: EW011089

PUBLICATION DATE: JUN 84

TITLE: TO MEASURE A VACUUM.

PERSONAL AUTHOR: MCCULLOUGH, JOHN M.

DESCRIPTOR: *COSTS; *DART; *COURSE DEVELOPMENT; *INSTRUCTION; *MANAGEMENT; *PROGRAM IMPROVEMENT; *PERSONNEL; *PLANNING; *TRAINING

DESCRIPTIVE NOTE: 68-70P.

ABSTRACT: DESCRIBED IS A DEFICIENCY ANALYSIS REVIEW TECHNIQUE (DART) THAT IS USED TO IDENTIFY AND MEASURE DEFICIENT OPERATIONS AND UNNECESSARY EXPENSES WHICH BECOME THE TARGET OF FORMAL EMPLOYEE TRAINING. EXAMPLES FOR USING THE SYSTEM ARE DESCRIBED. INCLUDED IN THE SYSTEM ARE SEVEN STEPS FROM PROBLEM IDENTIFICATION TO THE PRODUCTION AND IMPLEMENTATION OF COURSES.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V38 N6

IRIS ACCESSION NUMBER: EW011090

PUBLICATION DATE: JUN 84

TITLE: THE DYNAMICS OF POSITIVE POWER.

PERSONAL AUTHOR: TJOSVOLD, DEAN

DESCRIPTOR: *GOALS; *LEADERSHIP; *MANAGEMENT; *PERSONNEL; *PLANNING; *POWER; *PROGRAM IMPROVEMENT; *SUPERVISION

DESCRIPTIVE NOTE: 72-76P.

ABSTRACT: DESCRIBED IS A PROCEDURE FOR LINKING GOALS IN A POSITIVE WAY TO CREATE CONSTRUCTIVE POWER RELATIONSHIPS.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V38 N6

IRIS ACCESSION NUMBER: EW011106

PUBLICATION DATE: 82

TITLE: URBAN STORMWATER HYDROLOGY. WATER RESOURCES MONOGRAPH 7.

PERSONAL AUTHOR: KIBLER, DAVID F., ED.

DESCRIPTOR: *DATA COLLECTION; *DESIGN; *CASE STUDIES; *HYDROLOGY; *MANAGEMENT; *PLANNING; *STORMWATER; *SURFACE RUNOFF; *URBAN AREAS; *WASTEWATER COLLECTION; *WATER QUALITY

DESCRIPTIVE NOTE: 271P.

ABSTRACT: THE PRIMARY PURPOSE OF THIS MONOGRAPH IS TO PRESENT IN A COHERENT FASHION THE STATE OF THE ART IN URBAN HYDROLOGY AND STORMWATER MANAGEMENT. A SECONDARY OBJECTIVE IS TO COMMUNICATE RECENT RESEARCH FINDINGS AS THEY APPLY TO IMPROVED METHODS OF ANALYSIS OF URBAN RUN OFF. THE MONOGRAPH ATTEMPTS TO BRIDGE THE GAP BETWEEN CURRENT PRACTICE AND RESEARCH.

AVAILABILITY: AMERICAN GEOPHYSICAL UNION, 2000 FLORIDA AVE., N.W., WASHINGTON, DC 20009

IRIS ACCESSION NUMBER: EW011108

PUBLICATION DATE: 84

TITLE: ALGAE AS ECOLOGICAL INDICATORS.

PERSONAL AUTHOR: SHUBERT, L. ELLIOT, ED.

DESCRIPTOR: *ALGAE; *BIOLOGICAL INDICATORS; *CONFERENCE PROCEEDINGS; *ECOLOGICAL INDICATORS; ECOSYSTEMS; ENVIRONMENTAL EFFECTS; FRESHWATER ENVIRONMENT; HEAVY METALS; INDUSTRY; MARINE ENVIRONMENT; MODELLING; TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 464P. PRICE: \$65.00

ABSTRACT: THIS BOOK IS THE PROCEEDINGS OF A SYMPOSIUM ON ALGAE AS ECOLOGICAL INDICATORS HELD BY THE AMERICAN INSTITUTE OF BIOLOGICAL SCIENCES (AIBS) AT OKLAHOMA STATE UNIVERSITY. THE STUDY OF ALGAL ASSAYS REVEALS IMPORTANT INFORMATION ON THE EFFECT OF THE ENVIRONMENT ON FRESH WATER, MARINE, AND SOIL ORGANISMS. THE BOOK FOCUSES ON RECENT DEVELOPMENTS IN THE USE OF ALGAL BIOASSAYS AS INDICATORS OF ECOLOGICAL CHANGE, AND PRESENTS THE MATERIAL IN A CLEAR WELL-ORGANIZED AND FACTUAL TREATISE. ALGAE AS ECOLOGICAL INDICATORS PROVIDES UP-TO-DATE AND SPECIFIC INFORMATION ON HOW ALGAE CAN BE MANIPULATED TO PROVIDE DATA ON ECOLOGICAL CONDITIONS. THE UTILITY OF USING ALGAE AS EXPERIMENTAL ORGANISMS FOR ANALYZING THE EFFECTS OF HEAVY METALS, GROWTH STIMULATING NUTRIENTS AND VITAMINS, FOR EXAMPLE, IS DISCUSSED IN DETAIL. THE MAIN THEMES COVERED INCLUDE LABORATORY AND FIELD APPROACHES, INDUSTRIAL PRACTICES, GOVERNMENTAL PROCEDURES, AND COMPUTER MODELLING. THIS TIMELY VOLUME CONTAINS CURRENT WORK BY LEADING RESEARCHERS IN THE U.S.A., CANADA, THE U.K., AND FRANCE.

AVAILABILITY: ACADEMIC PRESS, INC., PROMOTION DEPT., 6277 SEA HARBOR DRIVE, ORLANDO, FL 32821

IRIS ACCESSION NUMBER: EW011111

PUBLICATION DATE: 80

TITLE: PRINCIPLES OF DESALINATION. PART B. SECOND EDITION.

PERSONAL AUTHOR: SPIEGLER, K. S., ED; LAIRD, A. D. K., ED.

DESCRIPTOR: *COSTS; *DESALINATION; *FILTRATION; *FREEZING; *OPERATIONS (WATER); *REVERSE OSMOSIS; *SOLAR DISTILLATION; *WATER TREATMENT

DESCRIPTIVE NOTE: 480P. PRICE: \$57.50

ABSTRACT: THIS BOOK ON DESALINATION CONTAINS CHAPTERS ON THE FOLLOWING TOPICS: (1) FREEZING METHODS; (2) REVERSE OSMOSIS; (3) PREPARATION OF ULTRAPURE WATER; (4) SCALE FORMATION AND PREPARATION; AND (5) SOLAR DISTILLATION.

AVAILABILITY: ACADEMIC PRESS, INC., 6277 SEA HARBOR DRIVE, ORLANDO, FL 32821

IRIS ACCESSION NUMBER: EW011122

PUBLICATION DATE: 84

TITLE: CHEMISTRY FOR TOXICITY TESTING.

PERSONAL AUTHOR: JAMESON, C. W.; WALTERS, DOUGLAS B.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMISTRY; *CHEMICAL REACTIONS; *CHEMICAL INHALATION STUDIES; *DATA EVALUATION; *DATA STORAGE; *INVENTORIES; *TESTING; *TOXICITY TESTING

DESCRIPTIVE NOTE: 248P. PRICE: \$29.95; BOOK NO.: 0-250-40547-4

ABSTRACT: THIS TEXT PROVIDES AN IN-DEPTH OVERVIEW OF THE CHEMISTRY REQUIREMENTS FOR TOXICITY TESTING FOLLOWED BY DESCRIPTIONS OF PRACTICAL APPLICATIONS UNDER ACTUAL TESTING CONDITIONS. TOPICS COVERED INCLUDE DOSAGE MIXING AND ANALYSIS OF CHEMICALS, CHEMICAL INHALATION STUDIES, DATA EVALUATION AND MANAGEMENT, EVALUATION OF DOSAGE ANALYSIS DATA, INVENTORY MANAGEMENT AND DATA STORAGE FOR CHEMICALS USED IN CODED TOXICITY TESTING.

AVAILABILITY: BUTTERWORTH PUBLISHERS, 80 MONTVALE AVENUE, STONEHAM, MA 02180

IRIS ACCESSION NUMBER: EW011123

PUBLICATION DATE: 84

TITLE: HEALTH AND SAFETY FOR TOXICITY TESTING.

PERSONAL AUTHOR: WALTERS, DOUGLAS B.; JAMESON, C. W.

DESCRIPTOR: ANALYTICAL TECHNIQUES; *CHEMICALS; FACILITIES; *HEALTH; LABORATORIES; LABORATORY PROCEDURES; MANAGEMENT; MONITORING; *SAFETY; *TOXIC SUBSTANCES; *TOXICITY TESTING; TRAINING; *WASTE MANAGEMENT

DESCRIPTIVE NOTE: 360P. PRICE: \$39.95; BOOK NO.: 0-250-40546-6

ABSTRACT: THE TOXICOLOGICAL TESTING OF ENVIRONMENTAL CHEMICALS IS CAUSING INCREASING SCIENTIFIC, REGULATORY, AND PUBLIC CONCERN OVER POSSIBLE HUMAN HEALTH EFFECTS. BECAUSE THEIR TOXICOLOGICAL CHARACTERIZATION OFTEN INVOLVES POTENTIALLY HAZARDOUS MATERIALS, THE CONTROL OF ALMOST ALL HEALTH AND SAFETY CONCERNS CENTERS ON AN IN-DEPTH KNOWLEDGE OF THE CHEMICAL-PHYSICAL PROPERTIES OF THESE MATERIALS. THIS BOOK PROVIDES A COMPREHENSIVE ANALYSIS OF THESE CONCERNS IN A LOGICAL AND HIGHLY ORGANIZED FORMAT. THE TEXT IS DIVIDED INTO FOUR PARTS, WHICH FOCUS ATTENTION ON THE PROGRESSIVE STAGES OF CHEMICAL HEALTH AND SAFETY DEVELOPMENT IN A TOXICOLOGY TESTING PROGRAM. PART ONE DESCRIBES SPECIFIC CONCERNS, REQUIREMENTS, PRINCIPLES, AND CONCEPTS FOR THE DESIGN OF FACILITIES IN WHICH TESTING OF ENVIRONMENTAL CHEMICALS WILL BE CONDUCTED. PART TWO DESCRIBES SOME OF THE REQUIREMENTS FOR ESTABLISHMENT OF A SAFETY PROGRAM FOR TOXICITY TESTING LABORATORIES. THIS INCLUDES DOCUMENT PREPARATION, AND TRAINING PROGRAMS. THE THIRD PART CONCERNS PROBLEMS ENCOUNTERED IN DAY-TO-DAY OPERATIONS OF A SAFETY PROGRAM, WHILE PART FOUR PRESENTS A NEW RISK ASSESSMENT APPROACH FOR MANAGEMENT OF LABORATORY WASTE.

AVAILABILITY: BUTTERWORTH PUBLISHERS, 80 MONTVALE AVENUE, STONEHAM, MA 02180

IRIS ACCESSION NUMBER: EW011124

TITLE: HAZARDOUS WASTES HANDBOOK. FOURTH EDITION.

DESCRIPTOR: *LIABILITY; *HANDBOOKS; *HAZARDOUS WASTES;
*INSPECTION; *LEGISLATION; *PERMIT REQUIREMENTS;
*REGULATIONS; *RCRA; *STORAGE; *TRANSPORTATION; *TREATMENT;
*WASTE DISPOSAL; *SUPERFUND

DESCRIPTIVE NOTE: 656P. PRICE: \$95.00

ABSTRACT: THIS IS THE FOURTH EDITION OF THIS HANDBOOK. THE HANDBOOK PROVIDES (1) AN OVERVIEW OF THE RCRA ACT, (2) IDENTIFICATION OF HAZARDOUS WASTES, (3) NOTIFICATION OF HAZARDOUS WASTE MANAGEMENT ACTIVITIES, (4) GENERATORS OF HAZARDOUS WASTES, (5) TRANSPORTERS, (6) TREATMENT, STORAGE, AND DISPOSAL, (7) PERMIT REQUIREMENTS, (8) AUTHORIZATION OF STATES, (9) INSPECTION AND ENFORCEMENT, (10) SUPERFUND LEGISLATION, AND (11) COMMON LAW CIVIL LIABILITY.

AVAILABILITY: GOVERNMENT INSTITUTES INC., 966 HUNRENFORD DR., #24, ROCKVILLE, MD 20850

IRIS ACCESSION NUMBER: EW011125

TITLE: HAZARDOUS MATERIAL SPILLS CONFERENCES PROCEEDINGS.

DESCRIPTOR: *CASE STUDIES; *CLEAN-UP; *CONFERENCE PROCEEDINGS; *DETECTION; *HAZARDOUS MATERIALS; *EMERGENCY RESPONSE; *LIABILITY; *LEGISLATION; *MONITORING; *SPILLS; *SAFETY; *TRAINING

DESCRIPTIVE NOTE: 510P. PRICE: \$48.50

ABSTRACT: THIS IS THE PROCEEDINGS OF THE 1982 HAZARDOUS MATERIALS SPILLS CONFERENCE. INCLUDED ARE 81 PAPERS PRESENTED AT THE CONFERENCE. TOPICS INCLUDE CASE HISTORIES, METHODS OF CLEAN-UP, EFFECTIVE EMERGENCY RESPONSE PROGRAMS, SAFETY, TRAINING, AND LIABILITY.

AVAILABILITY: GOVERNMENT INSTITUTES, INC., 966 HINGERFORD DRI., #24, ROCKVILLE, MD 20850

IRIS ACCESSION NUMBER: EW011126

TITLE: MULTIMEDIA ENVIRONMENTAL INSPECTION MANUAL.

DESCRIPTOR: *AIR POLLUTION; *COMPLIANCE; *ENVIRONMENT;
*EPA; *LEGISLATION; *INSPECTION; *HAZARDOUS WASTES;
*REGULATIONS; *TOXIC SUBSTANCES; *WATER POLLUTION

DESCRIPTIVE NOTE: 199P. PRICE: \$35.00

ABSTRACT: THIS PUBLICATION PROVIDES A LOOK AT THE OBJECTIVES OF EPA INSPECTION, INSPECTOR RESPONSIBILITIES, HOW EPA PLANS THE INSPECTION, HOW EPA WILL CONDUCT THE INSPECTION FROM ENTRY THROUGH OPENING CONFERENCE TO THE INSPECTION ITSELF AND THE CLOSING CONFERENCE. THE PUBLICATION ALSO INCLUDES A VARIETY OF TABLES, PROCEDURES, FORMS, AND CHECKLISTS.

AVAILABILITY: GOVERNMENT INSTITUTES, INC., 966 HUNGERFORD DR., #24, ROCKVILLE, MD 20850

IRIS ACCESSION NUMBER: EW011157

PUBLICATION DATE: 84

TITLE: WATER: NEW DIRECTIONS IN 1984. SUMMARY OF THE PROCEEDINGS OF THE SECOND ANNUAL INTERSTATE CONFERENCE ON WATER PROBLEMS.

DESCRIPTOR: *FINANCES; *CONFERENCE PROCEEDINGS;
*CONTAMINATION; *GROUNDWATER; *INTERSTATE CONFERENCE ON
WATER PROBLEMS; *LEGISLATION; *NONPOINT SOURCE POLLUTION;
*WATER RESOURCES; *WATER SUPPLY; *WATER QUALITY

DESCRIPTIVE NOTE: PRICE: \$8.00

ABSTRACT: THIS PUBLICATION IS THE PROCEEDING OF THE INTERSTATE CONFERENCE ON WATER PROBLEMS HELD IN 1984. THE PURPOSE OF THE CONFERENCE WAS TO CONSIDER EMERGING DIRECTIONS IN THE WATER RESOURCES FIELD. PROCEEDINGS INCLUDE ITEMS ON WATER PROJECTS, NONPOINT SOURCE POLLUTION, GROUNDWATER CONTAMINATION, AND LEGISLATIVE ACTION.

AVAILABILITY: FRESHWATER SOCIETY, 2500 SHADYWOOD ROAD, BOX 90, NAVARRE, MN 55392

IRIS ACCESSION NUMBER: EW011158

PUBLICATION DATE: 84

TITLE: GROUNDWATER CONTAMINATION.

DESCRIPTOR: *CHEMISTRY; *GROUNDWATER; *GROUNDWATER
CONTAMINATION; *LANDFILLS; *TRANSPORT; *WASTE DISPOSAL;
*WATER RESOURCES; *WATER POLLUTION CONTROL; *WATER QUALITY

DESCRIPTIVE NOTE: 179P. PRICE: \$17.95

ABSTRACT: THIS STUDY IS A PART OF A SERIES OF STUDIES IN GEOPHYSICS THAT HAVE BEEN UNDERTAKEN FOR THE GEOPHYSICS RESEARCH FORUM BY THE GEOPHYSICS STUDY COMMITTEE. SOME 22 AUTHORS COLLABORATED TO WRITE THIS REPORT ON GROUNDWATER CONTAMINATION IN THE UNITED STATES TODAY. THE INITIAL OVERVIEW BRIEFLY EXAMINES THE MAGNITUDE AND NATURE OF THE PROBLEM GENERALLY WITH SPECIFIC ATTENTION GIVEN TO 10 STATES. THE STATES OF ARIZONA, NEBRASKA, NEW JERSEY, NEW MEXICO, AND SOUTH CAROLINA WERE CHOSEN BECAUSE OF CASE HISTORY INFORMATION AND BECAUSE OF THEIR DIFFERING LEVELS OF INDUSTRIALIZATION, AGRICULTURAL ACTIVITY, POPULATION DENSITY, DEPENDENCE ON GROUNDWATER AND CLIMATIC CONDITIONS. CHAPTERS 2 AND 3 REVIEW THE SCIENTIFIC UNDERSTANDING OF CONTAMINANT TRANSPORT AND CHEMISTRY. CHAPTERS 4 AND 5 REVIEW SOME OF THE PROBLEMS ASSOCIATED WITH WASTE DISPOSAL METHODS. THE NEXT SEVEN CHAPTERS ARE DEVOTED TO SPECIFIC AND SOMEWHAT UNIQUE EXAMPLES OF GROUNDWATER CONTAMINATION, THE OVERALL NATURE OF THESE PROBLEMS, AND THE SCIENTIFIC PROBLEMS INVOLVED IN WASTE DISPOSAL AND AQUIFER RECLAMATION.

AVAILABILITY: NATIONAL ACADEMY PRESS, WASHINGTON, DC.

IRIS ACCESSION NUMBER: EW011159

PUBLICATION DATE: 81

TITLE: **FOODBORNE AND WATERBORNE DISEASES, THEIR EPIDEMIOLOGIC CHARACTERISTICS.**

PERSONAL AUTHOR: JACKSON, T. I.; VORPERIAN, J. H.

DESCRIPTOR: CASE STUDIES; *DISEASES; *DIAGNOSIS;
*FOODBORNE; FOOD PROCESSING; FOOD SERVICE; MICROBIOLOGY;
*PREVENTION; *PUBLIC HEALTH; *TREATMENT; *WATERBORNE; WATER
TREATMENT; TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 304P. PRICE: \$25.00

ABSTRACT: THIS BOOK COVERS VARIOUS INFECTIVE AND TOXIC AGENTS - BACTERIAL, VIRAL, PROTOZOAN, PARASITIC, FUNGAL AND CHEMICAL. CLINICAL SIGNS AND SYMPTOMS AND LABORATORY DIAGNOSES ARE OUTLINED FOR IDENTIFICATION. MEASURES FOR PREVENTION OF DISEASES ARE INCLUDED IN EACH CHAPTER. GUIDELINES FOR THE INVESTIGATION AND CONTROL OF CASES AND OUTBREAKS OF FOOD AND WATERBORNE DISEASES ARE PRESENTED. INCLUDED ARE CHAPTERS DEVOTED TO PLANTS THAT ARE POISONOUS WHEN INGESTED AND POISONS THAT ARE CONTAINED IN FOODS.

AVAILABILITY: AVI PUBLISHING COMPANY, INC., WESTPORT, CT.

IRIS ACCESSION NUMBER: EW011160

PUBLICATION DATE: 83

TITLE: **ACID RAIN: A WATER RESOURCES ISSUE FOR THE 80'S.**

PERSONAL AUTHOR: HERRMANN, RAYMOND; JOHNSON, A. IVAN, EDS.

DESCRIPTOR: *ACID RAIN; *ACID DEPOSITION; *CHEMISTRY;
*CHEMICAL REACTIONS; *ECOLOGY; *ENVIRONMENT; CALIFORNIA;
COLORADO; NEW ENGLAND; VIRGINIA; FLORIDA; NEW HAMPSHIRE;
GREAT LAKES; *RESEARCH REPORTS; VERMONT; *WATER QUALITY

DESCRIPTIVE NOTE: 83P. PRICE: \$5.95

ABSTRACT: INDIVIDUALS WHO DEAL WITH ATMOSPHERIC DEPOSITION ARE CONSTANTLY CONFRONTED WITH THE REALITIES AND MYTHS OF ACID RAIN. THIS PUBLICATION CONTAINS 11 PAPERS THAT ARE A REPRESENTATION OF THE CURRENT RESEARCH IN THE FIELD. MOST PAPERS DEAL WITH ACID RAIN PROBLEMS IN SPECIFIC PARTS OF THE UNITED STATES.

AVAILABILITY: AMERICAN WATER RESOURCES ASSOCIATION, 5410 CROSVENOR LANE, SUITE 220, BETHESDA, MD 20814

IRIS ACCESSION NUMBER: EW011163

PUBLICATION DATE: MAY 84

TITLE: **ABC LABORATORY "NEED-TO-KNOW" JOB ANALYSES.**

DESCRIPTOR: *ABC; *CERTIFICATION; *JOB ANALYSES;
*LABORATORY ANALYSTS; *PERSONNEL; *RATING SCALES; *WATER
TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 3-8P.

ABSTRACT: THIS ARTICLE PRESENTS THE ABC LABORATORY "NEED-TO-KNOW" JOB ANALYSES WHICH WILL BE USED AS THE BASIS FOR THE ABC'S LAB ANALYST CERTIFICATION PROGRAM.

AVAILABILITY: BENCH SHEET; SPEC 1SS N6

IRIS ACCESSION NUMBER: EW011167

PUBLICATION DATE: 80

TITLE: **STATISTICAL THEORY AND METHODOLOGY OF TRACE ANALYSIS.**

PERSONAL AUTHOR: LITEANU, C.; RICA, I.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICAL ANALYSIS;
*CHEMISTRY; *INSTRUCTIONAL MATERIALS; *POSTSECONDARY
EDUCATION; *STATISTICS; *TRACE ANALYSIS

DESCRIPTIVE NOTE: 446P. PRICE: \$109.95

ABSTRACT: PRESENTS NEW AND EXISTING METHODS FOR EVALUATING LIMITS OF DETECTION AND DETERMINATION FOR LOW CONCENTRATIONS, DISCUSSING IMPORTANT TECHNIQUES SUCH AS THOSE CONNECTED WITH ENVIRONMENTAL AND POLLUTION PROBLEMS. COVERS SIGNAL DETECTION AND INFORMATION THEORY IN RELATION TO STATISTICAL METHODS. ANALYSIS OF STATISTICAL ASPECTS OF THE MAJOR INSTRUMENTAL METHODS OF ANALYSIS (INCLUDING STABILITY OF THE SYSTEMS) IS REINFORCED BY RESULTS FROM THE AUTHORS' OWN RESEARCHES. ALSO CONSIDERS THE PROBLEM OF NON-HOMOGENEITY OF SAMPLES. NUMEROUS EXAMPLES OF PRACTICAL APPLICATIONS ARE INCLUDED.

AVAILABILITY: ANALYST'S BOOKSTORE, P.O. BOX 2097, CORVALLIS, OR 97339

IRIS ACCESSION NUMBER: EW011169

PUBLICATION DATE: 83

TITLE: **STATISTICS FOR ANALYTICAL CHEMISTS.**

PERSONAL AUTHOR: CAULCUTT, R.; BODDY, R.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ANALYTICAL CHEMISTRY;
*CHEMISTRY; *DATA ANALYSIS; *STATISTICS

DESCRIPTIVE NOTE: 256P. PRICE: \$49.95

ABSTRACT: CONTENTS INCLUDE: (1) WHAT IS STATISTICS? DESCRIBING A SET OF DATA; (2) ERRORS AND REPEATABILITY; (3) FIXED BIAS--DETECTION, ESTIMATION AND CORRECTION; (4) RELATIVE BIAS--DETECTION, ESTIMATION AND CORRECTION; (5) PRECISION; (6) CALIBRATION; (7) CALIBRATION--FURTHER DIFFICULTIES; (8) REPRODUCIBILITY; (9) VARIOUS EXPERIMENTS; (10) PRECISION EXPERIMENTS--ADVISORY PUBLICATIONS; AND (11) BIBLIOGRAPHY.

AVAILABILITY: ANALYST'S BOOKSTORE, P.O. BOX 2097, CORVALLIS, OR 97339

IRIS ACCESSION NUMBER: EW011172

PUBLICATION DATE: JUN 84

TITLE: "USER FRIENDLINESS:" HUMAN PERSPECTIVES ON COMPUTER-BASED MEDIA.

PERSONAL AUTHOR: MYERS, CHARLES R., JR.; SCHAEFER, ROGER A.

DESCRIPTOR: *AUTHORING SYSTEMS; *COMPUTER APPLICATIONS; *COMPUTER SOFTWARE; *EDUCATIONAL COMPUTING; *OMEGA AUTHORIZING SYSTEM; *SELECTION CRITERIA; *USER FRIENDLINESS

DESCRIPTIVE NOTE: 41, 44-46P.

ABSTRACT: THIS ARTICLE CONSIDERS THE ISSUE OF USER FRIENDLINESS AS IT APPLIES TO EDUCATIONAL COMPUTING APPLICATIONS. INFORMATION IS PROVIDED ABOUT AUTHORING SYSTEMS TO HELP POTENTIAL USERS SELECT OR DEVELOP EDUCATIONAL COMPUTING SYSTEMS.

AVAILABILITY: E-I TV; V16 N6

IRIS ACCESSION NUMBER: EW011173

PUBLICATION DATE: JUN 84

TITLE: DOING STILL-FRAMES FOR VIDEODISCS.

PERSONAL AUTHOR: WRIGHT, VAN O.

DESCRIPTOR: *AUDIOVISUAL AIDS; *COMPUTER APPLICATIONS; *INSTRUCTIONAL MATERIALS; *INTERACTIVE VIDEODISCS; *MATERIALS DEVELOPMENT; *STILL-FRAMES; *VIDEODISCS

DESCRIPTIVE NOTE: 58-60P.

ABSTRACT: DESCRIBED ARE THREE WAYS OF MAKING STILL-FRAMES FOR VIDEODISCS. ADVANTAGES OF EACH PROCEDURE ARE DESCRIBED.

AVAILABILITY: E-I TV; V16 N6

IRIS ACCESSION NUMBER: EW011174

PUBLICATION DATE: JUN 84

TITLE: EVALUATING PROGRAMS THROUGH VIEWER INTERVIEWS - PART II.

PERSONAL AUTHOR: GILLETTE, FRED

DESCRIPTOR: *AUDIOVISUAL AIDS; *DATA ANALYSIS; *EVALUATION; *INTERVIEWS; *PROGRAM EVALUATION; *SAMPLING

DESCRIPTIVE NOTE: 61-64P.

ABSTRACT: THIS IS PART II OF A TWO PART SERIES. DISCUSSED ARE SELECTING SAMPLES, HOW TO RECORD DATA, HOW TO REPORT FINDINGS, AND HOW TO EVALUATE THE INTERVIEW.

AVAILABILITY: E-I TV; V16 N6

IRIS ACCESSION NUMBER: EW011175

PUBLICATION DATE: JUL 84

TITLE: TOOLS FOR MAINTENANCE MANAGEMENT.

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTER SOFTWARE; *MAINTENANCE; *MANAGEMENT; *PLANNING; *PREVENTIVE MAINTENANCE

DESCRIPTIVE NOTE: 40-41P.

ABSTRACT: DESCRIBED ARE CHARACTERISTICS OF PREVENTIVE MAINTENANCE PROGRAMS THAT USE COMPUTERIZED PROGRAMS. ALSO LISTED ARE COMPUTER PROGRAMS NUMBER OF MODULES IN THE PROGRAM, COMPUTER HARDWARE TO USE WITH THE PROGRAM, AND COMPANIES THAT PROVIDE THE PROGRAMS.

AVAILABILITY: ENGINEER'S DIGEST; V12 N7

IRIS ACCESSION NUMBER: EW011176

PUBLICATION DATE: JUL 84

TITLE: 69TH STREET PH: THE STATE-OF-THE-ART.

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTER SOFTWARE; *EQUIPMENT; *MANAGEMENT; *MAINTENANCE; *OPERATIONS (WASTEWATER); *PREVENTIVE MAINTENANCE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 42P.

ABSTRACT: DESCRIBED IS PART OF THE HOUSTON, TEXAS, WASTEWATER TREATMENT PROJECT. PART OF THE PROJECT WAS FOR A STATE-OF-THE-ART EQUIPMENT MAINTENANCE SYSTEM. CUSTOMIZED PREVENTIVE AND CORRECTIVE MAINTENANCE SOFTWARE PROGRAMS WERE DEVELOPED. INCLUDED ARE A SCHEDULERS REPORT, WORK ORDERS, COST CALCULATIONS, AND REPORTS ON EQUIPMENT RELIABILITY.

AVAILABILITY: ENGINEER'S DIGEST; V12 N7

IRIS ACCESSION NUMBER: EW011177

PUBLICATION DATE: JUL 84

TITLE: CUTTING EDGE TRENDS IN ORGANIZATION DEVELOPMENT.

PERSONAL AUTHOR: LIPPITT, GORDON; AND OTHERS

DESCRIPTOR: *HUMAN RESOURCE SYSTEMS; *MANAGEMENT;
*ORGANIZATION DEVELOPMENT; *TRAINING; *TRENDS

DESCRIPTIVE NOTE: 59-62P.

ABSTRACT: DESCRIBED ARE CURRENT TRENDS IN ORGANIZATION DEVELOPMENT. IMPLICATIONS OF THESE TRENDS ARE CONSIDERED.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V38 N7

IRIS ACCESSION NUMBER: EW011178

PUBLICATION DATE: JUL 84

TITLE: A ROADMAP FOR MANAGERS AS DEVELOPERS.

PERSONAL AUTHOR: ZORN, THEODORE E., JR.

DESCRIPTOR: *EMPLOYEE DEVELOPMENT; *HUMAN RESOURCES
DEVELOPMENT; *MANAGEMENT; *PROGRAM DESCRIPTIONS; *SEED
MODEL; *TRAINING; *TRAINING MODELS

DESCRIPTIVE NOTE: 71-73P.

ABSTRACT: A MODEL FOR EMPLOYEE DEVELOPMENT IS PRESENTED. THE SUPERVISORY EFFECTIVENESS IN EMPLOYEE DEVELOPMENT (SEED) MODEL DETAILS A MANAGER'S RESPONSIBILITIES. SUGGESTIONS FOR IMPLEMENTING THE MODEL ARE GIVEN.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V38 N7

IRIS ACCESSION NUMBER: EW011184

PUBLICATION DATE: MAY 84

TITLE: STATE EXPERIENCES WITH TAXES ON GENERATORS OR DISPOSERS OF HAZARDOUS WASTE. REPORT TO THE CHAIRMAN, SUBCOMMITTEE ON COMMERCE, TRAN

PERSONAL AUTHOR: GENERAL ACCOUNTING OFFICE

DESCRIPTOR: *CALIFORNIA; *ECONOMIC INCENTIVES; *HAZARDOUS
WASTES; *INCENTIVES; *MANAGEMENT; *NEW HAMPSHIRE; *NEW YORK;
*TAXES; *WASTE CLEANUP; *WASTE GENERATORS; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 49P. PRICE: FIRST 5 COPIES FREE;
ADDITIONAL COPIES \$3.25 EACH. ORDER NO.: CAO/RCED-84-146

ABSTRACT: THIS REPORT DISCUSSES THE EXPERIENCES NEW YORK, NEW HAMPSHIRE, AND CALIFORNIA HAVE HAD WITH TAXES SIMILAR TO THOSE NOW PROPOSED AT THE FEDERAL LEVEL. GAO FOUND THAT THE THREE STATES (1) HAVE NOT COLLECTED THE REVENUES THEY

ANTICIPATED, (2) HAVE NOT DETERMINED IF THE TAX ACHIEVED ITS OBJECTIVE OF ENCOURAGING MORE DESIRABLE WASTE MANAGEMENT PRACTICES, AND (3) WERE CONCERNED THAT A SIMILAR FEDERAL TAX MAY REDUCE STATE TAX REVENUE OR INCREASE THE INCENTIVE TO ILLEGALLY DISPOSE OF HAZARDOUS WASTE. GAO BELIEVES MORE DATA ARE NEEDED ON TYPES AND QUANTITIES OF WASTE GENERATED AND THE DISPOSAL METHODS USED.

AVAILABILITY: U.S. GENERAL ACCOUNTING OFFICE, DOCUMENT HANDLING AND INFORMATION SERVICES FACILITY, P.O. BOX 6015, GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW011185

PUBLICATION DATE: 84

TITLE: GEOCHEMISTRY OF GROUND WATER IN THE SACRAMENTO VALLEY, CALIFORNIA. REGIONAL AQUIFER-SYSTEM ANALYSIS. U.S. GEOLOGICAL SURVEY PROFE

PERSONAL AUTHOR: HULL, LAURENCE C.

DESCRIPTOR: *CALIFORNIA; *GEOCHEMISTRY; *GROUNDWATER;
*CHEMISTRY; *MINERALS; *RESEARCH REPORTS; *SURVEYS; *WATER
RECHARGE; *WATER RESOURCES

DESCRIPTIVE NOTE: 36P. ORDER NO.: 776-041/4020

ABSTRACT: THIS REPORT IS THE RESULT OF A GEOCHEMICAL INVESTIGATION THAT WAS DONE TO EVALUATE TEMPORAL CHANGES IN WATER QUALITY AND TO DETERMINE THE PROCESSES THAT CONTROL WATER CHEMISTRY IN SHALLOW GROUND WATER OF THE SACRAMENTO VALLEY IN CALIFORNIA. BETWEEN 62 AND 651 WELLS WERE USED FOR VARIOUS ASPECTS OF THE STUDY.

AVAILABILITY: SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, DC 20402

IRIS ACCESSION NUMBER: EW011186

PUBLICATION DATE: FEB 79

TITLE: MUNICIPAL WASTEWATER MANAGEMENT: PUBLIC INVOLVEMENT ACTIVITIES GUIDE.

PERSONAL AUTHOR: RASTATTER, CLEM L., ED.

DESCRIPTOR: *FACILITIES; *HANDBOOKS; *MANAGEMENT;
*PLANNING; *PUBLIC PARTICIPATION; *UTILITIES; *WASTEWATER
TREATMENT

DESCRIPTIVE NOTE: 125P. PRICE: \$2.50

ABSTRACT: THIS HANDBOOK WAS PREPARED FOR USE IN A TRAINING PROGRAM TO ACQUAINT CITIZEN LEADERS WITH IMPORTANT DECISIONS THAT ARE MADE IN PLANNING FOR THE MANAGEMENT OF MUNICIPAL WASTEWATER. THE BOOK IS DIVIDED INTO TWO PARTS. THE FIRST PART CONSIDERS THE FACILITIES PLANNING PROCESS. THE SECOND PART OF THIS BOOK IS DESIGNED TO PROVIDE GUIDANCE TO THE PUBLIC INVOLVEMENT OPPORTUNITIES OF THE FACILITIES PLANNING

PROCESS. THE SECOND PART OF THE BOOK ALSO DESCRIBES SOME OF THE BASIC TOOLS OF PUBLIC PARTICIPATION.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS RD., ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW011187

PUBLICATION DATE: JUL 84

TITLE: NEW EQUIPMENT PRODUCES SIGNIFICANT SAVINGS FOR WASTEWATER TREATMENT PLANT.

DESCRIPTOR: *COSTS; *DEWATERING; *DESIGN; *FACILITY MODIFICATIONS; *EQUIPMENT; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *SLUDGE; *SLUDGE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 49-50P.

ABSTRACT: IN A SERIES OF STEPS, THE COSTS OF ENERGY AND CHEMICALS RELATED TO SLUDGE DISPOSAL WERE REDUCED. PROCEDURAL CHANGES AND EQUIPMENT AND FACILITY MODIFICATIONS ARE DESCRIBED.

AVAILABILITY: PUBLIC WORKS; V115 N7

IRIS ACCESSION NUMBER: EW011188

PUBLICATION DATE: JUL 84

TITLE: THE ANSWER IS A RESOUNDING 'YES, MAYBE!'

PERSONAL AUTHOR: HARDY, JUSTIN T.

DESCRIPTOR: *CONTRACTING; *CONTRACT SERVICES; *GUIDELINES; *MANAGEMENT; *MAINTENANCE; *OPERATIONS (WASTEWATER); *RECOMMENDATIONS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 58-60P.

ABSTRACT: THIS ARTICLE CONSIDERS WHETHER A WASTEWATER UTILITY CAN BENEFIT FROM CONTRACTING FOR OPERATIONS AND MAINTENANCE.

AVAILABILITY: PUBLIC WORKS; V115 N7

IRIS ACCESSION NUMBER: EW011189

PUBLICATION DATE: JUL 84

TITLE: MICROCOMPUTERS AND SOFTWARE PROVIDE USEFUL TOOLS FOR SEWER SYSTEM EVALUATION.

PERSONAL AUTHOR: CALISE, S. JOHN; AND OTHERS

DESCRIPTOR: *COMPUTER APPLICATIONS; *COSTS; *DESIGN; *FLORIDA; *MICROCOMPUTERS; *MAINTENANCE; *REHABILITATION;

*SEWERS; *SEWER SYSTEMS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 61-62P.

ABSTRACT: MICROCOMPUTERS WITH APPROPRIATE SOFTWARE CAN IDENTIFY SEWER SYSTEM AREAS WHERE MODIFICATIONS ARE NEEDED. THIS ARTICLE DISCUSSES THE ST. PETERSBURG, FLORIDA SOFTWARE AND HARDWARE.

AVAILABILITY: PUBLIC WORKS; V115 N7

IRIS ACCESSION NUMBER: EW011190

PUBLICATION DATE: JUL 84

TITLE: CHEMICAL ROOT CONTROL PROGRAM REDUCES SEWER STOPPAGES.

PERSONAL AUTHOR: SUTTON, M. KENNETH

DESCRIPTOR: *COSTS; *HERBICIDES; *PERFORMANCE EVALUATION; *MAINTENANCE; *MARYLAND; *OPERATIONS (WASTEWATER); *ROOTS; *ROOT CONTROL; *SEWERS; *SEWER BLOCKAGE; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 68-69P.

ABSTRACT: A COMMUNITY IN MARYLAND SUFFERED NUMEROUS SEWER BLOCKAGES DUE TO ROOT GROWTH BEFORE EMBARKING ON A HERBICIDE PROGRAM. THE PROBLEMS ENCOUNTERED AND THE SUCCESSFUL HERBICIDE TREATMENT PROGRAM ARE DESCRIBED.

AVAILABILITY: PUBLIC WORKS; V115 N7

IRIS ACCESSION NUMBER: EW011191

PUBLICATION DATE: JUL 84

TITLE: COATINGS COMBAT MILDEW AND CORROSION ON WATER TANKS.

PERSONAL AUTHOR: SIDES, PEARSON C.

DESCRIPTOR: *COATINGS; *COSTS; *MAINTENANCE; *PAINTS; *URETHANE; *WATER TANKS

DESCRIPTIVE NOTE: 70-71P.

ABSTRACT: A HIGH-PERFORMANCE COATING SYSTEM FOR WATER TANKS PROMISES LONG-TERM ECONOMICS. POLYURETHANE COATINGS WERE SELECTED FOR THIS APPLICATION IN GEORGIA.

AVAILABILITY: PUBLIC WORKS; V115 N7

IRIS ACCESSION NUMBER: EW011192

PUBLICATION DATE: JUL 84

TITLE: TELEPROMPTING IN BASIC.

PERSONAL AUTHOR: BROCK, CLIFFORD M.

DESCRIPTOR: *BASIC LANGUAGE; *COMPUTER APPLICATIONS;
*COMPUTER SOFTWARE; *COSTS; *TELEPROMPTING, *TELEVISION

DESCRIPTIVE NOTE: 53-55P.

ABSTRACT: DESCRIBED IS A TELEPROMPTING COMPUTER SOFTWARE PROGRAM THAT RUNS ON AN APPLE MICROCOMPUTER.

AVAILABILITY: E-1 TV; V16 N7

IRIS ACCESSION NUMBER: EW011193

PUBLICATION DATE: JUL 84

TITLE: LONG ISLAND ENVIRONMENTAL COMPLEX CITED FOR ENGINEERING EXCELLENCE.

DESCRIPTOR: *ELECTRICITY; *ENERGY; *ENGINEERING;
*FACILITIES; *HEAT RECOVERY; *RECYCLING; *SLUDGE; *SOLID WASTES;
*SEWAGE SLUDGE; *WASTE DISPOSAL; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 11P.

ABSTRACT: A FACILITY IN GLEN COVE, N.Y., THAT DISPOSES OF WASTEWATER, SEWAGE SLUDGE, AND MUNICIPAL REFUSE AND THEN RECOVERS WASTE HEAT TO GENERATE ELECTRICITY RECEIVED AN AWARD FOR ENGINEERING EXCELLENCE. THE FACILITY WAS DESIGNATED AN INNOVATIVE TECHNOLOGY BY THE EPA.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N7

IRIS ACCESSION NUMBER: EW011194

PUBLICATION DATE: JUL 84

TITLE: CONVENTIONAL WATER PROCESS COSTS STUDIED.

PERSONAL AUTHOR: TARQUIN, ANTHONY; GOODWIN, SARA

DESCRIPTOR: AERATION; *COSTS; *OPERATIONS (WATER);
*PERFORMANCE EVALUATION; SLUDGE RECIRCULATION; *WATER TREATMENT

DESCRIPTIVE NOTE: 24-27P.

ABSTRACT: STUDY OF AERATION AND SLUDGE RECIRCULATION PROCESSES AT AN EL PASO, TEXAS, WATER PLANT SUGGESTED CASE-BY-CASE CONSIDERATION OF THEIR COST-EFFECTIVENESS.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N7

IRIS ACCESSION NUMBER: EW011195

PUBLICATION DATE: JUL 84

TITLE: GOOD WATER FROM SIMPLE AUTOMATION.

PERSONAL AUTHOR: WEAVER, GRANT; DESROCHES, RICHARD E.

DESCRIPTOR: *AUTOMATION; *CONNECTICUT; *COSTS; *OPERATIONS (WATER);
*PROGRAM DESCRIPTIONS; *WATER TREATMENT

DESCRIPTIVE NOTE: 28-29P.

ABSTRACT: DESCRIBED IS A WATER TREATMENT PROGRAM OF A PLANT IN NORWICH, CONNECTICUT. THE SYSTEM IS VIRTUALLY AUTOMATIC AND DOES NOT RELY HEAVILY ON ELECTRONICS TO ACHIEVE THE AUTOMATED CONDITION.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N7

IRIS ACCESSION NUMBER: EW011196

PUBLICATION DATE: JUL 84

TITLE: WATER SUPPLY ASSURED FOR EMERGENCIES.

PERSONAL AUTHOR: LEVINE, PAUL R.

DESCRIPTOR: *CONSERVATION; *GROUNDWATER; *INDUSTRY;
*MASSACHUSETTS; *OPERATIONS (WATER); *WATER CONSERVATION;
*WATER SUPPLY; *WATER RESOURCES; *WATER TREATMENT; *WATER NEEDS

DESCRIPTIVE NOTE: 32-34P.

ABSTRACT: DESCRIBED IS A PROGRAM AT TEXAS INSTRUMENTS IN ATTLEBORO, MASS., TO CONSERVE WATER AND TO DEVELOP NEW RELIABLE WATER RESOURCES INDEPENDENT OF A MUNICIPAL WATER SUPPLY.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N7

IRIS ACCESSION NUMBER: EW011197

PUBLICATION DATE: JUL 84

TITLE: COLOR GRAPHICS ADDS A DIMENSION TO MANAGEMENT.

PERSONAL AUTHOR: KING, RICHARD W.; WHITE, WILLIAM L.

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTER GRAPHICS;
*MANAGEMENT; *OPERATIONS (WATER); *WATER TREATMENT

DESCRIPTIVE NOTE: 36-38P.

ABSTRACT: DESCRIBED IS A COMPUTER GRAPHICS CAPABILITY USED BY THE WATER UTILITIES DEPARTMENT IN SAN DIEGO, CALIFORNIA. THE PROGRAM IS USED TO ASSIST IN MANAGEMENT FUNCTIONS.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N7

IRIS ACCESSION NUMBER: EW011199

PUBLICATION DATE: FEB 84

TITLE: USEPA MANUAL FOR METHODS FOR VIROLOGY.

PERSONAL AUTHOR: BERG, GERALD; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *IDENTIFICATION;
*LABORATORY EQUIPMENT; *LABORATORY PROCEDURES; *MANUALS;
*VIRUSES; *WATER; *WASTEWATER; *WATER QUALITY

DESCRIPTIVE NOTE: 175P. PRICE: \$11.50

ABSTRACT: THIS MANUAL WAS DESIGNED TO MAKE IT POSSIBLE FOR ANY COMPETENT BACTERIOLOGY LABORATORY THAT CAN ARRANGE FOR VIRAL ASSAYS AND IDENTIFICATION BY A COMPETENT VIROLOGY LABORATORY TO CONCENTRATE AND RECOVER VIRUSES FROM WATERS AND FROM SLUDGES AND OTHER SOLIDS. SECTIONS ARE INCLUDED ON CLEANSING LABORATORY WARE AND EQUIPMENT, STERILIZATION AND DISINFECTION, QUALITY ASSURANCE, PROCEDURES FOR RECOVERING VIRUSES, PREPARATION AND USE OF CELL CULTURES, AND IDENTIFICATION.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW011200

PUBLICATION DATE: 84

TITLE: A CITIZEN'S GUIDE TO RIVER CONSERVATION.

PERSONAL AUTHOR: DIAMANT, RALPH; AND OTHERS

DESCRIPTOR: *CASE STUDIES; *CONSERVATION; *CONSERVATION EDUCATION; *PUBLIC PARTICIPATION; *PLANNING; *RIVERS; *WATER RESOURCES

DESCRIPTIVE NOTE: 113P. PRICE: \$7.95 PAPERBACK

ABSTRACT: A CITIZEN'S GUIDE TO RIVER CONSERVATION IS INTENDED TO ENCOURAGE AND HELP ANYONE, REGARDLESS OF EXPERIENCE, TO ORGANIZE AN EFFECTIVE RIVER CONSERVATION PROGRAM. DISCUSSION INCLUDES BOTH PRACTICAL STEPS FOR CITIZEN ACTION AND CONSERVATION TOOLS USED EFFECTIVELY THROUGHOUT THE COUNTRY, FROM LAND TRUSTS TO EASEMENTS TO REGULATORY STRATEGIES. INCLUDED ARE CASE STUDIES OF INNOVATIVE PROGRAMS IN CONNECTICUT, MAINE, MASSACHUSETTS, MINNESOTA, OREGON, PENNSYLVANIA, AND WASHINGTON. THE EXAMPLES, RELEVANT TO ALL PARTS OF THE COUNTRY, SUGGEST HOW CONCERNED CITIZENS, WORKING TOGETHER, CAN POSITIVELY INFLUENCE THE FUTURE OF THEIR LOCAL RIVERS AND WATERWAYS THROUGH LAND AND WATER CONSERVATION. SECTIONS INCLUDE (1) INTRODUCTION; (2) GETTING STARTED: SOME GUIDELINES; (3) UNDERSTANDING THE ISSUES; (4) USING BASIC CONSERVATION TOOLS; AND (5) CHOOSING A STRATEGY.

AVAILABILITY: THE CONSERVATION FOUNDATION, 1717 MASSACHUSETTS AVE., N.W., WASHINGTON, DC 20036

IRIS ACCESSION NUMBER: EW011202

PUBLICATION DATE: JUL 84

TITLE: WASTE APPLICATION TO LAND: THE LAND-USE ISSUE.

PERSONAL AUTHOR: COX, WILLIAM E.

DESCRIPTOR: *CONSTRAINTS; CONTAMINATION; *GOVERNMENT ROLE;
*LAND APPLICATION; *LAND USE; FLOODING; ODORS; PROPERTY RIGHTS; *REGULATIONS; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 270-84P.

ABSTRACT: LAND USE CONTROLS GENERALLY CAN BE CONSIDERED TO INCLUDE TWO SEPARATE CLASSES OF INSTITUTIONAL CONSTRAINTS: (1) FORMALIZED GOVERNMENTAL CONTROL IMPOSED PRIMARILY THROUGH LOCAL ORDINANCES; AND (2) PRIVATELY ENFORCED CONSTRAINTS BASED ON THE RIGHTS OF INDIVIDUAL LANDOWNERS TO USE AND ENJOY PROPERTY. THESE CONSTRAINTS ARE CONSIDERED SEPARATELY IN THE ARTICLE.

AVAILABILITY: JOURNAL OF WATER RESOURCES PLANNING AND MANAGEMENT; V110 N3

IRIS ACCESSION NUMBER: EW011203

PUBLICATION DATE: JUL 84

TITLE: LONG-RANGE RESERVOIR OUTFLOW TEMPERATURE PLANNING.

PERSONAL AUTHOR: WUNDERLICH, WALTER O.; SHIAO, MING C.

DESCRIPTOR: *MODELS; *OPERATIONS (WATER); *RESERVOIRS;
*TEMPERATURE; *TVA; TENNESSEE; *WATER OUTFLOW; *WATER RESOURCES; *WATER QUALITY

DESCRIPTIVE NOTE: 285-95P.

ABSTRACT: THIS PAPER DESCRIBES A METHOD TO MEET A LONG-RANGE WATER QUALITY (TEMPERATURE) GOAL FOR A DEEP STORAGE RESERVOIR WITHOUT MULTILEVEL DISCHARGE FACILITIES. THE PROCEDURE WAS DESIGNED FOR RESERVOIR OPERATIONS SIMILAR TO THOSE IN THE TENNESSEE VALLEY REGION.

AVAILABILITY: JOURNAL OF WATER RESOURCES PLANNING AND MANAGEMENT; V110 N3

IRIS ACCESSION NUMBER: EW011204

PUBLICATION DATE: JUL 84

TITLE: REAL-TIME RESERVOIR OPERATIONS BY GOAL PROGRAMMING.

PERSONAL AUTHOR: CAN, EMRE K.; HOUCK, MARK H.

DESCRIPTOR: *GOAL PROGRAMMING MODEL; *KENTUCKY; *MODELS;
*OPERATIONS (WATER); *PERFORMANCE EVALUATION; *RESERVOIRS;
*WATER RESOURCES; *WATER FLOW

DESCRIPTIVE NOTE: 297-209P.

ABSTRACT: THE DEVELOPMENT OF SYSTEMS ANALYSIS TECHNIQUES AND THEIR USEFUL APPLICATIONS TO REAL-TIME RESERVOIR OPERATIONS HAVE RECENTLY BEEN REPORTED. THIS PAPER PRESENTS A PREEMPTIVE COAL PROGRAMMING MODEL FOR RESERVOIR OPERATIONS. APPLICATIONS TO THE GREEN RIVER BASIN ARE PRESENTED.

AVAILABILITY: JOURNAL OF WATER RESOURCES PLANNING AND MANAGEMENT; V110 N3

IRIS ACCESSION NUMBER: EW011205

PUBLICATION DATE: JUL 84

TITLE: WATER MANAGEMENT USING INTERACTIVE SIMULATION.

PERSONAL AUTHOR: CUNNINGHAM, ALFRED B.; AMEND, JOHN R.

DESCRIPTOR: *COMPUTER APPLICATIONS; *INTERACTIVE SIMULATION; *INSTRUCTION; *MANAGEMENT; *MODELS; *PUBLIC EDUCATION; *SIMULATIONS; *TRAINING; *WATER USE; *WATER RESOURCES; *WATER DEMAND; *WATER SUPPLY

DESCRIPTIVE NOTE: 310-22P.

ABSTRACT: THIS PAPER IS INTENDED TO INTRODUCE A WATER MANAGEMENT ANALYSIS ALTERNATIVE WHICH IS RAPIDLY BEING PROVED EFFECTIVE FOR DEALING WITH SEVERAL CATEGORIES OF CONTEMPORARY WATER RESOURCE MANAGEMENT PROBLEMS. INTERACTIVE SIMULATION CAN BE APPLIED TO A VARIETY OF ISSUES AND PROVIDE A FLEXIBLE ALTERNATIVE TO TRADITIONAL DIGITAL COMPUTER SIMULATIONS.

AVAILABILITY: JOURNAL OF WATER RESOURCES PLANNING AND MANAGEMENT; V110 N3

IRIS ACCESSION NUMBER: EW011206

PUBLICATION DATE: JUL 84

TITLE: GROUND-WATER/SUBSIDENCE MODEL: A MANAGEMENT TOOL.

PERSONAL AUTHOR: POLLARD, WAYNE S.; JOHNSON, KENNETH H.

DESCRIPTOR: *COMPUTER APPLICATIONS; *GROUNDWATER; *LAND USE; *MANAGEMENT; *MODELS; *PREDICTION; *PUMPING; *SUBSIDENCE; *TEXAS

DESCRIPTIVE NOTE: 323-32P.

ABSTRACT: REPORTED IS A COMPUTER MODELING SYSTEM TO PROVIDE A TEXAS AREA WITH RAPID, DOCUMENTED PREDICTIONS OF LAND SUBSIDENCE RESULTING FROM PUMPING OF GROUNDWATER.

AVAILABILITY: JOURNAL OF WATER RESOURCES PLANNING AND MANAGEMENT; V110 N3

IRIS ACCESSION NUMBER: EW011207

PUBLICATION DATE: JUL 84

TITLE: OPTIMIZATION MODEL FOR GROUND-WATER PLANNING.

PERSONAL AUTHOR: WILLIS, ROBERT; LIU, PHILIP

DESCRIPTOR: *GROUNDWATER; *MANAGEMENT; *MODELS; *PLANNING; *TAIWAN; *WATER RESOURCES

DESCRIPTIVE NOTE: 333-47P.

ABSTRACT: THIS PAPER FOCUSES ON A PLANNING MODEL FOR THE OPTIMAL MANAGEMENT OF GROUNDWATER SYSTEMS. THE MODEL IS APPLIED TO A REGION OF TAIWAN.

AVAILABILITY: JOURNAL OF WATER RESOURCES PLANNING AND MANAGEMENT; V110 N3

IRIS ACCESSION NUMBER: EW011208

PUBLICATION DATE: JUL 84

TITLE: ESTIMATING O AND M COST WHEN COSTS VARY WITH FLOW.

PERSONAL AUTHOR: WALSKI, THOMAS M.

DESCRIPTOR: *COSTS; *ECONOMICS; *EQUIVALENT FLOW; *FLOW; *MAINTENANCE; *MANAGEMENT; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 355-60P.

ABSTRACT: THIS PAPER PROVIDES SOME EASY-TO-USE GRAPHS TO DETERMINE EQUIVALENT FLOW AND THE YEAR IN WHICH IT OCCURS. THESE GRAPHS CAN BE USED TO DETERMINE COSTS OF OPERATION AND MAINTENANCE OF A PROJECT.

AVAILABILITY: JOURNAL OF WATER RESOURCES PLANNING AND MANAGEMENT; V110 N3

IRIS ACCESSION NUMBER: EW011218

PUBLICATION DATE: SUM 84

TITLE: OPTIMIZING PUMPING STRATEGIES FOR CONTAMINANT STUDIES AND REMEDIAL ACTIONS.

PERSONAL AUTHOR: KEELY, JOSEPH F.

DESCRIPTOR: *CONTAMINATION; *GROUNDWATER; *HYDRAULICS; *MANAGEMENT; *PUMPING; *PUMPING STRATEGIES; *RESEARCH; *MONITORING; *WATER QUALITY; *WATER POLLUTION CONTROL; *WATER RESOURCES

DESCRIPTIVE NOTE: 63-74P.

ABSTRACT: PRESENTED ARE PUMPING STRATEGIES FOR GROUNDWATER CONTAMINANT STUDIES AND REMEDIAL ACTION. TOPICS INCLUDE

FACTORS AFFECTING PUMPING STRATEGIES, CAPTURE ZONES AND ZONES OF PRESSURE INFLUENCES, AND A COMPARISON OF PUMPING STRATEGIES.

AVAILABILITY: GROUND WATER MONITORING REVIEW; V4 N3

IRIS ACCESSION NUMBER: EW011219

PUBLICATION DATE: AUG 84

TITLE: KEEP TRACK OF DEVICES WITH A SIMPLE SYSTEM.

PERSONAL AUTHOR: O'CONNOR, KEITH

DESCRIPTOR: *BACKFLOW PREVENTION; *CROSSCONNECTION CONTROL; *OPERATIONS (WATER); *RECORDKEEPING; *WATER DISTRIBUTION

DESCRIPTIVE NOTE: 1,3P.

ABSTRACT: DESCRIBED IS A RECORDKEEPING SYSTEM USED BY THE BOISE WATER CORPORATION FOR BACKFLOW PREVENTION DEVICES.

AVAILABILITY: BACKFLOW PREVENTION; V1 N2

IRIS ACCESSION NUMBER: EW011220

PUBLICATION DATE: AUG 84

TITLE: AIR GAPS IN PLUMBING SYSTEMS

DESCRIPTOR: *AIR GAP; *BACKFLOW; *PLUMBING; *PLUMBING SYSTEMS

DESCRIPTIVE NOTE: 2P.

ABSTRACT: DISCUSSED IS THE AIR GAP, A NON-MECHANICAL MEANS OF PREVENTING BACKFLOW IN PLUMBING SYSTEMS.

AVAILABILITY: BACKFLOW PREVENTION; V1 N2

IRIS ACCESSION NUMBER: EW011271

PUBLICATION DATE: APR 84

TITLE: AMPEROMETRIC, BIPOTENTIOMETRIC, AND COULOMETRIC TITRATION.

PERSONAL AUTHOR: STOCK, JOHN T.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICAL REACTIONS; *CHEMICAL ANALYSIS; *CHEMISTRY; *LABORATORY EQUIPMENT; LITERATURE REVIEWS; *LABORATORY PROCEDURES; METALS; OXIDATION

DESCRIPTIVE NOTE: 1R-7RP.

ABSTRACT: REVIEWS LITERATURE ON AMPEROMETRIC, BIPOTENTIOMETRIC, AND COULOMETRIC TITRATION METHODS

EXAMINING: APPARATUS AND METHODOLOGY; ACID-BASE REACTIONS; PRECIPITATION AND COMPLEXING REACTIONS (CONSIDERING METHODS INVOLVING SILVER, MERCURY, EDTA OR ANALOGOUS REAGENTS, AND OTHER ORGANIC COMPOUNDS); AND OXIDATION-REDUCTION REACTIONS (CONSIDERING METHODS INVOLVING IRON, CHLORINE, BROMINE, AND NON-FERROUS METHODS INVOLVING CERIUM, TITANIUM, VANADIUM, CHROMIUM, AND MANGANESE).

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N5

IRIS ACCESSION NUMBER: EW011272

PUBLICATION DATE: APR 84

TITLE: DYNAMIC ELECTROCHEMISTRY: METHODOLOGY AND APPLICATIONS.

PERSONAL AUTHOR: JOHNSON, DENNIS C.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMISTRY; *CHEMICAL ANALYSIS; *CHEMICAL REACTIONS; INSTRUMENTATION; *LABORATORY EQUIPMENT; KINETICS; *LABORATORY PROCEDURES; LITERATURE REVIEWS; SCIENCE EQUIPMENT

DESCRIPTIVE NOTE: 7R-20RP.

ABSTRACT: REVIEWS LITERATURE DEALING WITH NOVEL DEVELOPMENTS AND IMPORTANT TRENDS IN ELECTROCHEMISTRY. AREAS EXAMINED INCLUDE MASS TRANSFER, ELECTRODE KINETICS, SURFACE EFFECTS, CHEMICALLY MODIFIED ELECTRODES, COULOSTATIC/GALVANOSTATIC METHODS, BIOELECTROCHEMISTRY, SPECTROELECTROCHEMISTRY, AND ELECTRODE INSTRUMENTATION. BOOKS, TEXTBOOKS, AND LITERATURE REVIEWS ARE ALSO REVIEWED.

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N5

IRIS ACCESSION NUMBER: EW011273

PUBLICATION DATE: APR 84

TITLE: ION-SELECTIVE ELECTRODES.

PERSONAL AUTHOR: ARNOLD, MARK A.; MEYERHOFF, MARK E.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; BOOKS; CONFERENCES; *CHEMISTRY; *CHEMICAL ANALYSIS; CHEMICAL REACTIONS; *INSTRUMENTATION; *LABORATORY EQUIPMENT; *LABORATORY PROCEDURES; LITERATURE REVIEWS

DESCRIPTIVE NOTE: 20R-48RP.

ABSTRACT: LITERATURE ON ION-SELECTIVE ELECTRODES (ISES) IS REVIEWED IN SEVEN SECTIONS: BOOKS, CONFERENCES, REVIEWS, POTENTIOMETRIC MEMBRANE ELECTRODES; GLASS AND SOLID-SLATE MEMBRANE ELECTRODES; LIQUID AND POLYMER MEMBRANE ISES; COATED WIRE ELECTRODES, ION-SELECTIVE FIELD EFFECT TRANSISTORS, AND MICROELECTRODES; GAS SENSORS AND SELECTIVE BIOELECTRODE SYSTEMS; AND ISES IN FLOW-THROUGH ARRANGEMENTS AND ANALYSIS SYSTEMS.

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N5

IRIS ACCESSION NUMBER: EW011274

PUBLICATION DATE: APR 84

TITLE: THIN-LAYER AND PAPER CHROMATOGRAPHY.

PERSONAL AUTHOR: SHERMA, JOSEPH; FRIED, BERNARD

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BIOCHEMISTRY; CHEMICAL REACTIONS; *CHEMISTRY; *CHEMICAL ANALYSIS; *CHROMATOGRAPHY; LITERATURE REVIEWS

DESCRIPTIVE NOTE: 48R-63RP.

ABSTRACT: REVIEWS LITERATURE ON CHROMATOGRAPHY EXAMINING: BOOKS, REVIEWS, STUDENT EXPERIMENTS; CHROMATOGRAPHIC SYSTEMS, TECHNIQUES, APPARATUS; DETECTING AND IDENTIFICATION OF SEPARATED ZONES; PREPARATIVE CHROMATOGRAPHY AND RADIOCHROMATOGRAPHY; AND APPLICATIONS RELATED TO SPECIFIC MATERIALS (SUCH AS ACIDS, ALCOHOLS, AMINO ACIDS, ANTIBIOTICS, ENZYMES, DYES, PIGMENTS, HORMONES, STEROIDS, HYDROCARBONS, NUCLEIC ACIDS, TOXINS, PHARMACEUTICALS, DRUGS, PHENOLS, AND VITAMINS).

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N5

IRIS ACCESSION NUMBER: EW011275

PUBLICATION DATE: APR 84

TITLE: FUNCTIONAL GROUP ANALYSIS.

PERSONAL AUTHOR: SMITH, WALTER T., JR.; PATTERSON, JOHN M.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICAL ANALYSIS; *CHEMICAL REACTIONS; *LABORATORY PROCEDURES; LITERATURE REVIEWS; *ORGANIC CHEMISTRY

DESCRIPTIVE NOTE: 63R-68RP.

ABSTRACT: LITERATURE ON ANALYTICAL METHODS RELATED TO THE FUNCTIONAL GROUPS OF 17 CHEMICAL COMPOUNDS IS REVIEWED. THESE COMPOUNDS INCLUDE ACIDS, ACID AZIDES, ALCOHOLS, ALDEHYDES, KETONES, AMINO ACIDS, AROMATIC HYDROCARBONS, CARBODIIMIDES, CARBOHYDRATES, ETHERS, NITRO COMPOUNDS, NITROSAMINES, ORGANOMETALLIC COMPOUNDS, PEROXIDES, PHENOLS, SILICON COMPOUNDS, AND THIOLS.

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N5

IRIS ACCESSION NUMBER: EW011276

PUBLICATION DATE: APR 84

TITLE: ORGANIC ELEMENTAL ANALYSIS.

PERSONAL AUTHOR: MA, T. S.; WANG, C. Y.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICAL ANALYSIS; CHEMICAL REACTIONS; *LABORATORY PROCEDURES; LITERATURE REVIEWS; *ORGANIC CHEMISTRY

DESCRIPTIVE NOTE: 88R-96RP.

ABSTRACT: PRESENTS A LITERATURE REVIEW ON METHODS USED TO ANALYZE ORGANIC COMPOUNDS. TOPIC AREAS INCLUDE METHODS FOR: (1) ANALYZING CARBON, HYDROGEN, AND NITROGEN; (2) ANALYZING OXYGEN, SULFUR, AND HALOGENS; (3) ANALYZING OTHER ELEMENTS; (4) SIMULTANEOUSLY DETERMINING SEVERAL ELEMENTS; AND (5) DETERMINING TRACE ELEMENTS.

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N5

IRIS ACCESSION NUMBER: EW011277

PUBLICATION DATE: APR 84

TITLE: SAMPLING FOR CHEMICAL ANALYSIS.

PERSONAL AUTHOR: KRATOCHVIL, BYRON

DESCRIPTOR: *ANALYTICAL TECHNIQUES; AGRICULTURE; BIOLOGY; *CHEMISTRY; *CHEMICAL ANALYSIS; *LABORATORY PROCEDURES; LITERATURE REVIEWS; METALLURGY; *SAMPLING; *WATER

DESCRIPTIVE NOTE: 113R-29RP.

ABSTRACT: THIS REVIEW, DESIGNED TO MAKE ANALYSTS AWARE OF UNCERTAINTIES INTRODUCED INTO ANALYTICAL MEASUREMENTS DURING SAMPLING, IS ORGANIZED UNDER THESE HEADINGS: GENERAL CONSIDERATIONS; THEORY; STANDARDS; AND APPLICATIONS RELATED TO MINERALOGY, SOILS, SEDIMENTS, METALLURGY, ATMOSPHERE, WATER, BIOLOGY, AGRICULTURE AND FOOD, MEDICAL AND CLINICAL AREAS, OIL AND GAS, AND MISCELLANEOUS AREAS.

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N5

IRIS ACCESSION NUMBER: EW011278

PUBLICATION DATE: APR 84

TITLE: EMISSION SPECTROMETRY.

PERSONAL AUTHOR: KELIHER, PETER N.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; BOOKS; *CHEMISTRY; *CHEMICAL ANALYSIS; *INSTRUMENTATION; *LABORATORY EQUIPMENT; *LABORATORY PROCEDURES; LITERATURE REVIEWS; MEETINGS; *SPECTROSCOPY

DESCRIPTIVE NOTE: 133R-56RP.

ABSTRACT: PRESENTED IS A REVIEW OF SELECTED LITERATURE ON EMISSION SPECTROMETRY PUBLISHED DURING 1982 AND 1983. THE REVIEW IS ORGANIZED UNDER THESE HEADINGS: BOOKS AND REVIEWS; SPECTRAL DESCRIPTIONS AND CLASSIFICATIONS; INSTRUMENTATION;

STANDARDS, SAMPLES, NOMENCLATURE, CALIBRATION, CALCULATIONS;
EXCITATION SOURCES; SELECTED APPLICATIONS; AND MEETINGS.

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N5

IRIS ACCESSION NUMBER: EW011279

PUBLICATION DATE: APR 84

TITLE: GAS CHROMATOGRAPHY.

PERSONAL AUTHOR: KARASEK, FRANCIS W.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICAL REACTIONS;
*CHEMISTRY; *CHEMICAL ANALYSIS; *CHROMATOGRAPHY;
*INSTRUMENTATION; LITERATURE REVIEWS; SPECTROSCOPY

DESCRIPTIVE NOTE: 174R-99RP.

ABSTRACT: THIS REVIEW COVERS FUNDAMENTAL DEVELOPMENTS IN
GAS CHROMATOGRAPHY DURING 1982 AND 1983. LITERATURE IS
CONSIDERED UNDER THESE HEADINGS: COLUMNS; LIQUID PHASES;
SOLID SUPPORTS; SORPTION PROCESSES AND SOLVENTS; OPEN
TUBULAR COLUMN GAS CHROMATOGRAPHY; INSTRUMENTATION; HIGH-
RESOLUTION COLUMNS AND APPLICATIONS; OTHER TECHNIQUES;
QUALITATIVE AND QUANTITATIVE ANALYSIS; AND METHODOLOGY.

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N5

IRIS ACCESSION NUMBER: EW011280

PUBLICATION DATE: APR 84

TITLE: RAMAN SPECTROSCOPY.

PERSONAL AUTHOR: GERRARD, DONALD L.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMISTRY; *CHEMICAL
ANALYSIS; *INSTRUMENTATION; *LABORATORY EQUIPMENT;
*SPECTROSCOPY

DESCRIPTIVE NOTE: 219R-25RP.

ABSTRACT: REVIEWS LITERATURE ON RAMAN SPECTROSCOPY FROM
LATE 1981 TO LATE 1983. TOPIC AREAS INCLUDE: INSTRUMENTATION
AND SAMPLING; LIQUIDS AND SOLUTIONS; GASES AND MATRIX
ISOLATION; BIOLOGICAL MOLECULES; POLYMERS; HIGH-TEMPERATURE
AND HIGH-PRESSURE STUDIES; RAMAN MICROSCOPY; THIN FILMS AND
SURFACES; RESONANCE-ENHANCED AND SURFACE-ENHANCED
SPECTROSCOPY; AND NONLINEAR RAMAN SPECTROSCOPY.

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N5

IRIS ACCESSION NUMBER: EW011281

PUBLICATION DATE: APR 84

TITLE: ULTRAVIOLET AND LIGHT ABSORPTION SPECTROMETRY.

PERSONAL AUTHOR: HARGIS, L. G.; HOWELL, J. A.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMISTRY; *CHEMICAL
ANALYSIS; INSTRUMENTATION; *LABORATORY EQUIPMENT; LIGHT;
LITERATURE REVIEWS; *LABORATORY PROCEDURES; METALS;
*SPECTROSCOPY

DESCRIPTIVE NOTE: 225R-41RP.

ABSTRACT: REVIEWS DEVELOPMENTS IN ULTRAVIOLET AND LIGHT
ABSORPTION SPECTROMETRY FROM DECEMBER 1981 THROUGH NOVEMBER
1983, FOCUSING ON THE CHEMISTRY INVOLVED IN DEVELOPING
SUITABLE REAGENTS, ABSORBING SYSTEMS, AND METHODS OF
DETERMINATION, AND ON PHYSICAL ASPECTS OF THE PROCEDURES.
INCLUDES LISTS OF SPECTROPHOTOMETRIC METHODS FOR METALS,
NON-METALS, AND ORGANIC COMPOUNDS.

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N5

IRIS ACCESSION NUMBER: EW011282

PUBLICATION DATE: APR 84

TITLE: X-RAY SPECTROMETRY.

PERSONAL AUTHOR: MARKOWICZ, ANDRZEJ A.; VAN GRIEKEN, RENE
E.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMISTRY; *CHEMICAL
ANALYSIS; INSTRUMENTATION; *LABORATORY PROCEDURES;
LITERATURE REVIEWS; *SPECTROSCOPY

DESCRIPTIVE NOTE: 241R-50RP.

ABSTRACT: PROVIDED IS A SELECTIVE LITERATURE SURVEY OF X-
RAY SPECTROMETRY FROM LATE 1981 TO LATE 1983. LITERATURE
EXAMINED FOCUSES ON: EXCITATION (PHOTON AND ELECTRON
EXCITATION AND PARTICLE-INDUCED X-RAY EMISSION; DETECTION
(WAVELENGTH-DISPERSIVE AND ENERGY-DISPERSIVE SPECTROMETRY);
INSTRUMENTATION AND TECHNIQUES; AND ON SUCH QUANTITATIVE
ANALYTICAL TECHNIQUES AS X-RAY FLUORESCENCE AND ELECTRON
PROBE MICROANALYSIS.

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N5

IRIS ACCESSION NUMBER: EW011283

PUBLICATION DATE: APR 84

TITLE: CHEMOMETRICS.

PERSONAL AUTHOR: DELANEY, MICHAEL F.

DESCRIPTOR: ARTIFICIAL INTELLIGENCE; *CHEMISTRY; *CHEMICAL
ANALYSIS; *FACTOR ANALYSIS; *LABORATORY PROCEDURES;
MICROCOMPUTERS; MATHEMATICAL APPLICATIONS; SEARCH
STRATEGIES; *STATISTICS; SPECTROSCOPY

DESCRIPTIVE NOTE: 261R-77RP.

ABSTRACT: THIS LITERATURE REVIEW ON CHEMOMETRICS (COVERING DECEMBER 1981 TO DECEMBER 1983) IS ORGANIZED UNDER THESE HEADINGS: PERSONAL SUPERMICROCOMPUTERS; EDUCATION AND BOOKS; STATISTICS; MODELING AND PARAMETER ESTIMATION; RESOLUTION; CALIBRATION; SIGNAL PROCESSING; IMAGE ANALYSIS; FACTOR ANALYSIS; PATTERN RECOGNITION; OPTIMIZATION; ARTIFICIAL INTELLIGENCE; GRAPH THEORY AND STRUCTURE HANDLING; AND LIBRARY SEARCHING.

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N5

IRIS ACCESSION NUMBER: EW011284

PUBLICATION DATE: APR 84

TITLE: ATOMIC ABSORPTION, ATOMIC FLUORESCENCE, AND FLAME EMISSION SPECTROMETRY.

PERSONAL AUTHOR: HORLICK, GARY

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMISTRY; *CHEMICAL ANALYSIS; *INSTRUMENTATION; *LABORATORY EQUIPMENT; LITERATURE REVIEWS; *LABORATORY PROCEDURES; *SPECTROSCOPY

DESCRIPTIVE NOTE: 278R-92RP.

ABSTRACT: THIS REVIEW IS PRESENTED IN SIX SECTIONS. SECTIONS FOCUS ON LITERATURE RELATED TO: (1) DEVELOPMENTS IN INSTRUMENTATION, MEASUREMENT TECHNIQUES, AND PROCEDURES; (2) PERFORMANCE STUDIES OF FLAMES AND ELECTROTHERMAL ATOMIZERS; (3) APPLICATIONS OF ATOMIC ABSORPTION SPECTROMETRY; (4) ANALYTICAL COMPARISONS; (5) ATOMIC FLUORESCENCE SPECTROMETRY; AND (6) FLAME EMISSION SPECTROMETRY.

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N5

IRIS ACCESSION NUMBER: EW011285

PUBLICATION DATE: APR 84

TITLE: COLUMN LIQUID CHROMATOGRAPHY.

PERSONAL AUTHOR: MAJORS, RONALD E.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; BOOKS; *CHEMISTRY; *CHEMICAL ANALYSIS; *CHROMATOGRAPHY; *INSTRUMENTATION; *LABORATORY PROCEDURES; LITERATURE REVIEWS

DESCRIPTIVE NOTE: 300R-49RP.

ABSTRACT: REVIEWS LITERATURE COVERING DEVELOPMENTS OF COLUMN LIQUID CHROMATOGRAPHY DURING 1982-1983. AREAS CONSIDERED INCLUDE: BOOKS AND REVIEWS; GENERAL THEORY; COLUMNS; INSTRUMENTATION; DETECTORS; AUTOMATION AND DATA HANDLING; MULTIDIMENSIONAL CHROMATOGRAPHIC AND COLUMN SWITCHING TECHNIQUES; LIQUID-SOLID CHROMATOGRAPHY; NORMAL BONDED-PHASE, REVERSED-PHASE, AND REVERSED PHASE ION-PAIR CHROMATOGRAPHY; ION EXCHANGE CHROMATOGRAPHY; ION CHROMATOGRAPHY; SIZE-EXCLUSION CHROMATOGRAPHY; AND OTHERS.

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N5

IRIS ACCESSION NUMBER: EW011286

PUBLICATION DATE: APR 84

TITLE: INFRARED SPECTROMETRY.

PERSONAL AUTHOR: MCDONALD, ROBERT S.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; COMPUTER SOFTWARE; *CHEMISTRY; *CHEMICAL ANALYSIS; *INSTRUMENTATION; *LABORATORY PROCEDURES; LITERATURE REVIEWS; *SPECTROSCOPY; SAMPLING

DESCRIPTIVE NOTE: 349R-72RP.

ABSTRACT: THIS REVIEW ON INFRARED SPECTROMETRY, COVERING THE PERIOD FROM LATE 1981 TO LATE 1983, IS DIVIDED INTO NINE SECTIONS. TOPIC AREAS INCLUDE: BOOKS; REVIEWS; ANALYTICAL APPLICATIONS; BIOCHEMICAL APPLICATIONS; ENVIRONMENTAL APPLICATIONS; POLYMER APPLICATIONS; INFRARED INSTRUMENTATION; SAMPLING TECHNIQUES; AND SOFTWARE AND ALGORITHMS.

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N5

IRIS ACCESSION NUMBER: EW011287

PUBLICATION DATE: JUL 84

TITLE: METROCOM: AN INTERACTIVE DATABASE FOR MANAGING A MODERN METROPOLIS.

PERSONAL AUTHOR: HANICAN, FRANCIS L.; RIVERA, CARLOS A.

DESCRIPTOR: *ADMINISTRATION; *COMPUTER APPLICATIONS; *DATABASES; *GOVERNMENT; *MANAGEMENT; *MUNICIPALITIES; *PLANNING; *TEXAS; *UTILITIES

DESCRIPTIVE NOTE: 50-55P.

ABSTRACT: DESCRIBED IS THE FOUR-YEAR TASK OF DEVELOPING A COMPREHENSIVE INTERACTIVE DATABASE FOR HOUSTON, TEXAS. THE DATABASE IS USED FOR A VARIETY OF MANAGEMENT AND PLANNING FUNCTIONS FOR THE CITY.

AVAILABILITY: AWWA JOURNAL; V76 N7

IRIS ACCESSION NUMBER: EW011288

PUBLICATION DATE: JUL 84

TITLE: COMPUTERIZED DISTRIBUTION RECORDS - CADD PAVES THE WAY.

PERSONAL AUTHOR: CURTISS, JOHN F.; LOHMILLER, PAUL A.

DESCRIPTOR: *CADD; *COMPUTER APPLICATIONS; *DESIGN;
*DRAFTING; *DATA RETRIEVAL; LEAK DETECTION; MODELS; MAPS;
SEWERS; UTILITIES; *WATER SYSTEMS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 56-61P.

ABSTRACT: DESCRIBED IS A COMPUTER-AIDED DRAFTING AND DESIGN SYSTEM THAT CAN PROVIDE GRAPHIC AND NONGRAPHIC DATA FOR A CITY WATER AND SEWER SYSTEM.

AVAILABILITY: AWWA JOURNAL; V76 N7

IRIS ACCESSION NUMBER: EW011289

PUBLICATION DATE: JUL 84

TITLE: MICROCOMPUTER PROGRAMS FOR DESIGNING WATER SYSTEMS.

PERSONAL AUTHOR: KOH, ENG SENG; MAIDMENT, DAVID R.

DESCRIPTOR: *COMPUTER SOFTWARE; *DESIGN; *COSTS;
*FACILITIES; *PLANNING; *WATER TREATMENT; *WATER SUPPLY;
*WATER DISTRIBUTION; *WATER DEMAND; *WATER RESOURCES

DESCRIPTIVE NOTE: 62-65P.

ABSTRACT: DESCRIBED IS THE USE OF INEXPENSIVE MICROCOMPUTER PROGRAMS THAT MAKE DESIGN COMPUTATIONS POSSIBLE FOR WATER SYSTEMS IN DEVELOPING COUNTRIES. FIVE PROGRAMS ARE INCLUDED: DEMAND, YIELD, MAINS, RESERV AND COSTS.

AVAILABILITY: AWWA JOURNAL; V76 N7

IRIS ACCESSION NUMBER: EW011290

PUBLICATION DATE: JUL 84

TITLE: CALIBRATING WATER SYSTEM MODELS.

PERSONAL AUTHOR: CESARIO, A. LEE; DAVID, J. O.

DESCRIPTOR: *CALIBRATION; *COMPUTER APPLICATIONS; *COMPUTER
MODELS; *COMPUTER SOFTWARE; *MODELS; *OPERATIONS (WATER);
*PLANNING; *TRAINING; *WATER SYSTEMS

DESCRIPTIVE NOTE: 66-69P.

ABSTRACT: CALIBRATION ENABLES A COMPUTER MODEL TO SIMULATE FIELD CONDITIONS ACCURATELY. THE MODEL CAN SERVE AS A BENCHMARK FOR OPERATIONS AND PLANNING STUDIES FOR WATER SYSTEM OPERATIONS.

AVAILABILITY: AWWA JOURNAL; V76 N7

IRIS ACCESSION NUMBER: EW011291

PUBLICATION DATE: JUL 84

TITLE: PUMP STATION DESIGN: THE BENEFITS OF COMPUTER MODELING.

PERSONAL AUTHOR: ROBINSON, MILLARD P., JR.; BLAIR, R. EDWIN, JR.

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTER MODELS;
*DESIGN; *FACILITIES; MODELS; *NETWORK MODELING; *PUMP
STATIONS; SYSTEMS ANALYSIS; *WATER DISTRIBUTION; WATER
SYSTEMS

DESCRIPTIVE NOTE: 70-77P.

ABSTRACT: COMPUTER MODELING CAN ASSIST IN THE DESIGN OF PUMP STATIONS. DESCRIBED IS THE USE OF MODELS FOR THE NORFOLK, VIRGINIA WATER SYSTEM.

AVAILABILITY: AWWA JOURNAL; V76 N7

IRIS ACCESSION NUMBER: EW011292

PUBLICATION DATE: JUL 84

TITLE: COMPUTER MODELING IN WATER SYSTEM PLANNING AND DESIGN.

PERSONAL AUTHOR: HARRIS, RONALD U.

DESCRIPTOR: *CASE STUDIES; *COMPUTER APPLICATIONS;
*COMPUTER MODELS; *COMPUTER SOFTWARE; *DESIGN; *FACILITIES;
*MODELS; *MANAGEMENT; *PLANNING; *WATER DISTRIBUTION; *WATER
SYSTEMS

DESCRIPTIVE NOTE: 78-81P.

ABSTRACT: AN OVERVIEW OF THE METHODS OF MODELING WATER SYSTEMS TO IMPROVE AND EXPAND DISTRIBUTION FACILITIES IS FOLLOWED BY SEVERAL CASE STUDIES.

AVAILABILITY: AWWA JOURNAL; V76 N7

IRIS ACCESSION NUMBER: EW011293

PUBLICATION DATE: JUL 84

TITLE: A COMPUTER-ASSISTED WATER SYSTEM ANALYSIS AND DESIGN FOR CHARLESTON, S.C.

PERSONAL AUTHOR: TOPPING, RAYMOND E.; PUCCIA, ROBERT J.

DESCRIPTOR: *COMPUTER APPLICATIONS; *DESIGN; *FACILITIES;
*EQUIPMENT; *PERFORMANCE EVALUATION; *PLANNING; *SOUTH
CAROLINA; *WATER DISTRIBUTION; *WATER SYSTEMS

DESCRIPTIVE NOTE: 82-89P.

ABSTRACT: A COMPUTER MODEL WAS DEVELOPED AND USED TO ANALYZE ALL COMPONENTS OF THE CHARLESTON, S.C. WATER DISTRIBUTION SYSTEM.

AVAILABILITY: AWWA JOURNAL; V76 N7

IRIS ACCESSION NUMBER: EW011294

PUBLICATION DATE: JUL 84

TITLE: CONFLUENCE: IF AT FIRST, YOU DON'T SUCCEED...

DESCRIPTOR: *COSTS; *METERS; *METER READING; *NEW YORK; *PERFORMANCE EVALUATION; *WATER METERS; *WATER DISTRIBUTION; *WATER SYSTEMS

DESCRIPTIVE NOTE: 110,113P.

ABSTRACT: DESCRIBED IS A PROGRAM IN A NEW YORK COMMUNITY THAT HAS CUSTOMERS READ THEIR OWN METERS AND MAIL-IN WATER USE. THE COMMUNITY IS SATISFIED WITH THE SUCCESS OF THE PROGRAM.

AVAILABILITY: AWWA JOURNAL; V76 N7

IRIS ACCESSION NUMBER: EW011295

PUBLICATION DATE: MAY 84

TITLE: CHARACTERIZATION OF HAZARDOUS WASTE SITES, A METHODS MANUAL. VOLUME 3. AVAILABLE LABORATORY ANALYTICAL METHODS.

PERSONAL AUTHOR: PLUMB, R. H., JR.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *HAZARDOUS WASTES; *LABORATORY PROCEDURES; *MANUALS; *MONITORING; *SITE EVALUATION

DESCRIPTIVE NOTE: 690P. PRICE CODE: PC A99/MF E03. ORDER NO.: PB84-191043

ABSTRACT: A MANUAL OF AVAILABLE ANALYTICAL PROCEDURES HAS BEEN PREPARED AS VOLUME 3 OF THE REPORT CHARACTERIZATION OF HAZARDOUS WASTE SITES - A METHODS MANUAL. THIS MANUAL PROVIDES DETAILED INSTRUCTIONS FOR THE PREPARATION AND ANALYSIS OF HAZARDOUS WASTE, WATER, SOIL/SEDIMENT, BIOLOGICAL TISSUE, AND AIR SAMPLES FOR 261 SUBSTANCES LISTED IN THE HAZARDOUS WASTE REGULATIONS. EACH OF THE METHODS FOR THE 946 ANALYTE-MATRIX COMBINATIONS THAT HAVE BEEN ACCUMULATED IN THIS VOLUME IS CLASSIFIED AS EITHER "EVALUATED" OR "AVAILABLE" BASED ON THE AVAILABILITY OF PRECISION AND ACCURACY DATA.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011296

PUBLICATION DATE: MAY 84

TITLE: TOXICITY OF NICKEL. JUNE 1983 - MAY 1984. (CITATIONS FROM THE ENERGY DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *ANALYTICAL TECHNIQUES; BIBLIOGRAPHIES; *ENVIRONMENTAL EFFECTS; *NICKEL; *METALS; *MONITORING; *RESEARCH; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 108P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-864784

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE TOXICITY, CARCINOGENICITY, ENVIRONMENTAL POLLUTION, AND OTHER HAZARDS OF NICKEL. ENVIRONMENTAL POLLUTION ASSAYS, BIOLOGICAL MONITORING METHODS, AND CHEMICAL ASSAYS FOR THE DETECTION OF NICKEL ARE DISCUSSED. THE TOXICITY OF NICKEL TO AQUATIC AND TERRESTRIAL FLORA AND FAUNA, INCLUDING MAN, ARE CONSIDERED. (THIS UPDATE BIBLIOGRAPHY CONTAINS 93 CITATIONS, ALL OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011297

PUBLICATION DATE: AUG 83

TITLE: OTS (OFFICE OF TOXIC SUBSTANCES) INFORMATION ARCHITECTURE NOTEBOOK.

PERSONAL AUTHOR: LAU, E.; AND OTHERS

DESCRIPTOR: *COMPUTER APPLICATIONS; *ENVIRONMENTAL EFFECTS; *CHEMICAL FATE; *INFORMATION SOURCES; *MODELS; REFERENCES; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 183P. PRICE CODE: PC A09/MF A01. ORDER NO.: PB84-183655

ABSTRACT: THIS NOTEBOOK REPRESENTS THE FIRST ATTEMPT BY EPA'S OFFICE OF TOXIC SUBSTANCES (OTS) TO IDENTIFY AND ASSESS BOTH ITS SCIENTIFIC/TECHNICAL INFORMATION REQUIREMENTS AND MAJOR INFORMATION RESOURCES CONTAINING PERTINENT DATA. OTS' INFORMATION REQUIREMENTS ARE EXPRESSED IN TERMS OF DATA CATEGORIES AND SUBCATEGORIES WHICH ARE PROPERLY DEFINED AND CLASSIFIED. THESE DATA CATEGORIES AND SUBCATEGORIES ARE MATCHED AGAINST A TOTAL OF 700 COMPUTERIZED DATA BASES AND MANUAL INFORMATION RESOURCES IN A SERIES OF MATRICES INDICATING WHERE INFORMATION MAY BE AVAILABLE. FURTHERMORE, THESE 700 INFORMATION RESOURCES ARE EVALUATED BY USING A SERIES OF SEARCH AND SYSTEM ATTRIBUTES IN A SERIES OF MATRICES DEPICTING THE SEARCH AND SYSTEM CAPABILITIES FOR MANY OF THESE RESOURCES. ALSO INCLUDED IN THIS INFORMATION ASSESSMENT ARE THE COMPUTER MODELS THAT OTS HAS DEVELOPED FOR PREDICTING PHYSICAL/CHEMICAL PROPERTIES OR FOR ASSESSING CHEMICAL FATE AND ENVIRONMENTAL AND HUMAN EXPOSURE. THE MAJOR OBJECTIVE OF THIS AFFORT IS TO EVALUATE THE ADEQUACY OF EXISTING INFORMATION RESOURCES AND TO IDENTIFY MAJOR INFORMATION GAPS. AS INFORMATION REQUIREMENTS

AND INFORMATION RESOURCES CAPABILITIES CHANGE, THIS NOTEBOOK WILL BE PERIODICALLY UPDATE TO REFLECT THESE CHANGES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011298

PUBLICATION DATE: JUL 84

TITLE: COMPUTER CONTROLLED OPERATION OF AN ACTIVATED SLUDGE PLANT.

PERSONAL AUTHOR: CRINKER, JOSEPH R.; MEACHER, RICHARD F.

DESCRIPTOR: *AUTOMATION; *ACTIVATED SLUDGE; *COMPUTER APPLICATIONS; *CONTROL SYSTEMS; *FACILITIES; *OPERATIONS (WASTEWATER); *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 823-29P.

ABSTRACT: A CONTROL SYSTEM FOR AN ACTIVATED SLUDGE PLANT AUTOMATES SIX MAJOR PROCESS TRAINS BY USING SIMPLE CONTROL LOGIC, TESTED CONTROL PRINCIPLES, AND FAIL-SAFE DEVICES FOR BACK-UP.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N7

IRIS ACCESSION NUMBER: EW011299

PUBLICATION DATE: JUL 84

TITLE: RESTORATION OF FAILING ON-SITE WASTEWATER DISPOSAL SYSTEMS USING WATER CONSERVATION.

PERSONAL AUTHOR: SHARPE, WILLIAM E.; AND OTHERS

DESCRIPTOR: *CONSERVATION; *PERFORMANCE EVALUATION; *ONSITE WASTEWATER TREATMENT; *ONSITE DISPOSAL; *RETROFITTING; *SEPTIC TANKS; *WASTEWATER TREATMENT; *WATER CONSERVATION

DESCRIPTIVE NOTE: 858-66P.

ABSTRACT: RETROFITTING WATER CONSERVATION DEVICES USUALLY COSTS LESS THAN REHABILITATION OF SOIL ABSORPTION AREAS, AND USER ACCEPTANCE OF THE DEVICES IS VERY GOOD.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N7

IRIS ACCESSION NUMBER: EW011300

PUBLICATION DATE: JUL 84

TITLE: PILOT PLANT DEMONSTRATION OF BIOLOGICAL PHOSPHORUS REMOVAL.

PERSONAL AUTHOR: DEAKYNE, CHARLES W.; AND OTHERS

DESCRIPTOR: *BIOLOGICAL (WASTEWATER); *PHOSPHORUS; *WASTEWATER TREATMENT TREATMENT; *PERFORMANCE *OPERATIONS EVALUATION;

DESCRIPTIVE NOTE: 867-73P.

ABSTRACT: DESCRIBED IS A PILOT PLANT DEMONSTRATION OF BIOLOGICAL PHOSPHORUS REMOVAL. THE PROCESS ACHIEVED EFFLUENT PHOSPHORUS CONCENTRATIONS OF 2.2 MG/L OR LOWER.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N7

IRIS ACCESSION NUMBER: EW011301

PUBLICATION DATE: JUL 84

TITLE: PRELIMINARY FINDINGS OF THE PRIORITY POLLUTANT MONITORING PROJECT OF THE NATIONWIDE URBAN RUNOFF PROGRAM.

PERSONAL AUTHOR: COLE, R. H.; AND OTHERS

DESCRIPTOR: *ENVIRONMENTAL EFFECTS; USEPA; *NATIONWIDE URBAN RUNOFF PROGRAM; *ORGANIC COMPOUNDS; *PRIORITY POLLUTANT MONITORING PROJECT; *PRIORITY POLLUTANTS; *SURFACE RUNOFF; *SURVEYS; *WASTEWATER COLLECTION; *WATER QUALITY

DESCRIPTIVE NOTE: 898-908P.

ABSTRACT: REPORTED ARE PRELIMINARY FINDINGS OF THE PRIORITY POLLUTANT MONITORING PROJECT OF THE NURP. WITH A FEW EXCEPTIONS, ORGANIC PRIORITY POLLUTANTS FOUND MOST FREQUENTLY IN RESIDENTIAL AND COMMERCIAL AREAS POSE LITTLE RISK AT THE LEVELS DETECTED.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N7

IRIS ACCESSION NUMBER: EW011302

PUBLICATION DATE: 83

TITLE: TRACE ANALYSIS AND TECHNOLOGICAL DEVELOPMENT.

PERSONAL AUTHOR: DAS, M. SANKAR

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CONFERENCE PROCEEDINGS; *COMMUNICATIONS; *LABORATORY PROCEDURES; MICROELECTRONICS; NUCLEAR TECHNOLOGY; PATHOLOGY; POLLUTION MONITORING; *TRACE ANALYSIS; *TECHNOLOGY

DESCRIPTIVE NOTE: 407P. PRICE: \$40.00

ABSTRACT: THIS PUBLICATION IS BASED ON TOPICS COVERED AT THE FIRST INTERNATIONAL SYMPOSIUM ON TRACE ANALYSIS AND TECHNOLOGICAL DEVELOPMENT. TOPICS INCLUDED ARE NUCLEAR TECHNOLOGY, MICROELECTRONICS, COMMUNICATIONS PATHOLOGY, AND POLLUTION MONITORING. STATE-OF-THE-ART ANALYTICAL METHODS

ARE PRESENTED.

AVAILABILITY: WILEY PROFESSIONAL BOOKS, JOHN WILEY AND SONS, INC., P.O. BOX 663, SOMERSET, NJ 08873

IRIS ACCESSION NUMBER: EW011303

PUBLICATION DATE: AUG 84

TITLE: TWO WAYS TO EVALUATE YOUR PERFORMANCE APPRAISAL SYSTEM.

PERSONAL AUTHOR: KIRKPATRICK, DONALD L.

DESCRIPTOR: *CHECKLISTS; *EVALUATION; *MANAGEMENT;
*PERSONNEL RATING; *PERSONNEL; *PERFORMANCE EVALUATION;
*SURVEYS

DESCRIPTIVE NOTE: 38-40P.

ABSTRACT: PROVIDED IS A SIMPLE SURVEY PROCEDURE AND A FIVE-POINT EFFECTIVENESS CHECKLIST TO EVALUATE YOUR EMPLOYEE PERFORMANCE APPRAISAL SYSTEM.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V38 N8

IRIS ACCESSION NUMBER: EW011304

PUBLICATION DATE: AUG 84

TITLE: DETERMINATION OF 1-METHYL-2-PYRROLIDONE IN REFINERY HYDROCARBONS AND WATERS BY GAS CHROMATOGRAPHY.

PERSONAL AUTHOR: STEPHENS, ROBYN

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *GAS CHROMATOGRAPHY;
*LABORATORY PROCEDURES; *INDUSTRIAL WASTES; *1-METHYL-2-PYRROLIDONE; *NMP; *OIL REFINING; *SOLVENTS; *WATER QUALITY

DESCRIPTIVE NOTE: 1608-10P.

ABSTRACT: A NEW PROCEDURE HAS BEEN DEVELOPED FOR THE TRACE AND PERCENT LEVEL DETERMINATION OF 1-METHYL-2-PYRROLIDONE (NMP) IN WATER AND HEAVY OIL REFINERY FEEDSTOCKS. THE PROCEDURE IS REPORTED.

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N9

IRIS ACCESSION NUMBER: EW011305

PUBLICATION DATE: AUG 84

TITLE: STEAM DISTILLATION, SOLVENT EXTRACTION, AND ION EXCHANGE FOR DETERMINING POLAR ORGANICS IN SHALE PROCESS WATERS.

PERSONAL AUTHOR: RICHARD, JOHN J.; JUNK, GREGOR A.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CHEMICALS; *ION EXCHANGE; *LABORATORY PROCEDURES; *SHALE PROCESS WATER; *OIL SHALE; *ORGANIC COMPOUNDS; *RESEARCH; *STEAM DISTILLATION; *SOLVENT EXTRACTION; *WATER QUALITY

DESCRIPTIVE NOTE: 1625-28P.

ABSTRACT: THE RETORTING OF OIL SHALE LEADS TO A PROCESS WATER CONTAINING A COMPLEX MIXTURE OF ACIDIC, BASIC, AND NEUTRAL ORGANIC COMPOUNDS. STEAM DISTILLATION, SOLVENT EXTRACTION, AND ION EXCHANGE WERE USED TO ISOLATE SUBSTANCES. GAS CHROMATOGRAPHY WAS USED FOR THE ANALYSIS. THE ADVANTAGES OF STEAM DISTILLATION AND ION EXCHANGE ARE DISCUSSED.

AVAILABILITY: ANALYTICAL CHEMISTRY; V56 N9

IRIS ACCESSION NUMBER: EW011306

PUBLICATION DATE: JAN 84

TITLE: SPECIAL FUND FOR ABATEMENT OF COMBINED SEWER OVERFLOW POLLUTION IN MARINE BAYS AND ESTUARIES (THE MARINE CSO FUND). GUIDANCE FOR TH

DESCRIPTOR: *APPLICATION PROCEDURES; *BAYS; *EPA; *COMBINED SEWER; *OVERFLOW POLLUTION; *FUNDING; *ESTUARIES; *MARINE ENVIRONMENT; *REVIEW PROCEDURES; *SEWER OVERFLOW; *SEWERS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 13P. PRICE \$1.78

ABSTRACT: THIS GUIDE DESCRIBES THE SPECIAL FUND FOR ABATEMENT OF COMBINED SEWER OVERFLOW POLLUTION IN MARINE BAYS AND ESTUARIES. IT PROVIDES THE APPLICANT, STATE AND ENVIRONMENTAL PROTECTION AGENCY (EPA) PERSONNEL WITH A DESCRIPTION OF: THE CONTENTS OF A COMPLETE APPLICATION, THE PROCEDURE FOR STATE AND EPA REVIEW AND EVALUATION OF AN APPLICATION, THE EVALUATION AND PRIORITY CRITERIA, AND TECHNICAL GUIDANCE FOR THE PREPARATION OF A APPLICATION.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS RD., ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW011307

PUBLICATION DATE: 84

TITLE: ONSITE WASTEWATER SYSTEMS POLICY AND REGULATIONS IN THE USA.

PERSONAL AUTHOR: KREISSL, J. F.

DESCRIPTOR: *DESIGN; *FEDERAL ROLE; *LOCAL GOVERNMENTS; *OPERATIONS (WASTEWATER); *ONSITE WASTEWATER SYSTEMS; *POLICY; *REGULATIONS; *STATE CODES; *STATE ROLE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 16P. PRICE CODE: PC A02/MF A01. ORDER NO.: PB04-177328

ABSTRACT: THE RELATIONSHIP BETWEEN THE FEDERAL STATE AND LOCAL GOVERNMENTS WITH REGARD TO THE DESIGN AND USE OF ONSITE WASTEWATER SYSTEMS ARE DISCUSSED. STATE CODES WHICH GENERALLY GOVERN THE DESIGN AND USE OF ONSITE SYSTEMS ARE SUBSEQUENTLY ANALYZED AS TO THEIR MEANING AND VARIABILITY.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011308

PUBLICATION DATE: MAY 84

TITLE: ALTERNATIVE RBC (ROTATING BIOLOGICAL CONTACTOR) DESIGN - SECOND ORDER KINETICS.

PERSONAL AUTHOR: OPATKEN, E. J.

DESCRIPTOR: *DESIGN; *ROTATING BIOLOGICAL CONTACTORS; *EQUIPMENT; *FACILITIES; *OPERATIONS (WASTEWATER); *SECONDARY TREATMENT; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 16P. PRICE CODE: PC A02/MF A01. ORDER NO.: PB84-190537

ABSTRACT: THIS PAPER PRESENTS AN ALTERNATIVE METHOD FOR DESIGNING ROTATING BIOLOGICAL CONTACTORS (RBC) FOR USE AS A SECONDARY TREATMENT OPERATION. THE METHOD USES A COMBINATION OF CHEMICAL KINETICS, GOOD ENGINEERING PRACTICE, OPERATIONAL SIMPLICITY, AND COST EFFECTIVENESS TO DESIGN A RBC SYSTEM TO TREAT 10 MGD HAVING AN EFFLUENT BELOW 12 MG/L OF SOLUBLE BIOCHEMICAL OXYGEN DEMAND (SBOD). THE PAPER USES A STEP BY STEP APPROACH TO ILLUSTRATE (1) THE NUMBER OF RBC REQUIRED, (2) THE NUMBER OF STAGES NECESSARY TO ACHIEVE THE REQUIRED EFFLUENT CONCENTRATION, (3) THE NUMBER OF SHAFTS IN EACH STAGE, (4) THE CONCENTRATION OF SBOD IN EACH STAGE, (5) THE EFFECT ON PERFORMANCE WHEN THE DIURNAL VARIATION IN FLOW RANGES FROM 50 TO 200% OF DESIGN FLOW, AND (6) WHEN OXYGEN TRANSFER COVERS THE KINETICS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011309

PUBLICATION DATE: MAY 84

TITLE: TOXICITY BIOASSAYS: WATER POLLUTION EFFECTS ON AQUATIC ANIMALS AND PLANTS. 1977-APRIL, 1984 (CITATIONS FROM THE SELECTED WATER RE

DESCRIPTOR: *ANIMALS; *ANNOTATED BIBLIOGRAPHIES; *AQUATIC ENVIRONMENT; *BIBLIOGRAPHIES; *BIOASSAYS; *BIOLOGICAL EFFECTS; *ECOLOGICAL EFFECTS; *PLANTS; *RESEARCH; *TOXIC SUBSTANCES; *WATER POLLUTION

DESCRIPTIVE NOTE: 208P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-865534

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING

TOXICITY BIOASSAY STUDIES OF WATER POLLUTION EFFECTS ON REPRODUCTION, GROWTH AND MORTALITY OF AQUATIC ANIMALS AND PLANTS. WATER POLLUTANTS FROM INDUSTRIAL WASTES AND AGRICULTURAL WASTES SUCH AS METALS, CHEMICALS, PESTICIDES AND HERBICIDES ARE EVALUATED AND TESTED. STANDARD FISHES AND ALGAL ASSAYS ARE USED TO DETERMINE EFFECTS OF POTENTIAL TOXICANTS. (CONTAINS 214 CITATIONS FULLY INDEXED AND INCLUDING A TITLE LIST.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011310

PUBLICATION DATE: DEC 83

TITLE: URBAN HIGHWAY STORM DRAINAGE MODEL. VOLUME 4. SURFACE RUNOFF PROGRAM, USER'S MANUAL AND DOCUMENTATION.

PERSONAL AUTHOR: DEVER, R. J., JR.; AND OTHERS

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTER SOFTWARE; *DRAINAGE; *HYDRAULICS; *HIGHWAYS; *MANUALS; *SURFACE RUNOFF; *SIMULATIONS; *USER MANUALS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 231P. PRICE CODE: PC A11/MF A01. ORDER NO.: PB84-189802

ABSTRACT: THIS REPORT CONSISTS OF THE DOCUMENTATION AND USER'S MANUAL FOR THE SURFACE RUNOFF PROGRAM OF THE HYDRAULICS/QUALITY MODULE. THIS PROGRAM SIMULATES THE RUNOFF QUANTITY AND QUALITY FROM THE HIGHWAY AND ITS SURROUNDINGS AND ROUTES THE FLOW THROUGH THE SURFACE CONVEYANCE SYSTEM TO DETENTION BASINS AND INLETS TO THE UNDERGROUND CONDUIT SYSTEM.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011311

PUBLICATION DATE: MAY 83

TITLE: URBAN HIGHWAY STORM DRAINAGE MODEL: EXECUTIVE SUMMARY.

PERSONAL AUTHOR: DEVER, R. J., JR.

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTER SOFTWARE; *DRAINAGE; *HYDRAULICS; *HIGHWAYS; *SURFACE RUNOFF; *SIMULATIONS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 10P. PRICE CODE: PC A02/MF A01. ORDER NO.: PB84-189760

ABSTRACT: THIS REPORT IS THE EXECUTIVE SUMMARY FOR THIS STUDY. IT PRESENTS THE MAJOR FINDINGS OF THE STUDY AND DESCRIBES THE COMPUTER PROGRAMS THAT HAVE BEEN DEVELOPED AND THE USES TO WHICH THESE PROGRAMS MAY BE PUT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011312

PUBLICATION DATE: FEB 84

TITLE: EPA RESEARCH OUTLOOK, 1984.

DESCRIPTOR: *ACID RAIN; *AIR; *ENVIRONMENTAL IMPACTS;
*HAZARDOUS WASTES; *DRINKING WATER; *ENERGY; *PESTICIDES;
*RADIATION; *RESEARCH; *RESEARCH NEEDS; *TOXIC SUBSTANCES;
*TRENDS; *WATER QUALITY

DESCRIPTIVE NOTE: 161P. PRICE CODE: PC A08/MF A01. ORDER
NO.: PB84-194562

ABSTRACT: THIS DOCUMENT IS THE NINTH IN THIS SERIES OF
REPORTS TO CONGRESS. RESEARCH NEEDS IDENTIFIED IN THIS
YEAR'S REPORT INCLUDE: TOXIC SUBSTANCES AND PESTICIDES,
HAZARDOUS WASTES, AIR AND RADIATION, ENERGY, ACID RAIN,
DRINKING WATER, AND WATER QUALITY AS WELL AS SEVERAL OTHER
ISSUES WHICH CUT ACROSS MEDIA LINES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011313

PUBLICATION DATE: MAR 84

TITLE: DEVELOPMENT DOCUMENT FOR EFFLUENT LIMITATIONS
GUIDELINES AND STANDARDS FOR THE COPPER FORMING POINT SOURCE
CATEGORY.

PERSONAL AUTHOR: GOODWIN, J. K.

DESCRIPTOR: *COPPER; EPA; EFFLUENTS; *EFFLUENT LIMITATIONS;
*GUIDELINES; INDUSTRIAL WASTES; METALS; *STANDARDS;
*WASTEWATER

DESCRIPTIVE NOTE: 557P. PRICE CODE: PC A24/MF A01. ORDER
NO.: PB84-192459

ABSTRACT: THIS DOCUMENT PROVIDES THE DATA AND RATIONALE
USED TO DEVELOP THE EFFLUENT LIMITATIONS AND STANDARDS FOR
THE COPPER FORMING POINT SOURCE CATEGORY. THE MANUFACTURING
PROCESSES INCLUDED IN THE COPPER FORMING CATEGORY ARE
DESCRIBED AS ARE THE TREATMENT AND IN-PROCESS CONTROL
FORMING WASTEWATERS. DATA CHARACTERIZING THE CHEMICAL NATURE
AND FLOW OF COPPER FORMING WASTEWATER ARE PRESENTED. THESE
DATA FORM THE BASIS OF THE LIMITATIONS AND STANDARDS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011314

PUBLICATION DATE: FEB 84

TITLE: ECOLOGICAL IMPACTS OF WASTEWATER ON WETLANDS: AN
ANNOTATED BIBLIOGRAPHY.

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES;
*ECOLOGICAL EFFECTS; *ENVIRONMENTAL IMPACTS; *WASTEWATER;
*WETLANDS

DESCRIPTIVE NOTE: 339P. PRICE CODE: PC A15/MF A01. ORDER
NO.: PB84-191626

ABSTRACT: THE REPORT IS AN ANNOTATED COMPILATION OF
REFERENCES, NATIONWIDE, ON THE ECOLOGICAL EFFECTS OF
WASTEWATER ADDITION TO WETLANDS. IN ADDITION TO OVER 1000
ENTRIES, THE DOCUMENT CONTAINS AN INTRODUCTION TO THE
ECOLOGICAL ISSUES AND BIBLIOGRAPHIC RESEARCH METHODS, A
STUDY GUIDE HIGHLIGHTING LEADING REFERENCES AND AN INDEX TO
SUBJECTS, KEY WORDS AND GEOGRAPHICAL LOCATIONS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011315

PUBLICATION DATE: NOV 83

TITLE: OIL SPILLS: BIOLOGICAL EFFECTS. JUNE 1981-MARCH,
1983. (CITATIONS FROM THE AMERICAN PETROLEUM INSTITUTE
DATA.)

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES;
*BIOLOGICAL EFFECTS; *ECOLOGICAL EFFECTS; *OIL; *OIL SPILLS;
*RESEARCH; *WATER

DESCRIPTIVE NOTE: 119P. PRICE CODE: PC N01/MF N01. ORDER
NO.: PB84-800184

ABSTRACT: THE SELECTED ABSTRACTS COVER ASPECTS OF THE
BIOLOGICAL AND ECOLOGICAL EFFECTS OF OIL SPILLS IN SALT AND
FRESH WATER. THE EFFECTS ON MICROORGANISMS, PLANTS, AND
ANIMALS ARE STUDIED, ALONG WITH RESEARCH ON THE RESIDUES AND
METABOLIC PRODUCTS OF VARIOUS OIL COMPONENTS. (THIS UPDATED
BIBLIOGRAPHY CONTAINS 115 CITATIONS, 60 OF WHICH ARE NEW
ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011316

PUBLICATION DATE: MAY 84

TITLE: OPERATION AND MAINTENANCE OF SELECTED OZONE AND
ULTRAVIOLET DISINFECTION SYSTEMS.

PERSONAL AUTHOR: JUNKINS, R.

DESCRIPTOR: *DISINFECTION; *OPERATIONS (WASTEWATER);
*OZONE; *PERFORMANCE EVALUATION; *RECOMMENDATIONS;
*ULTRAVIOLET LIGHT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 254P. PRICE CODE: PC A12/MF A01. ORDER
NO.: PB84-180124

ABSTRACT: AS PART OF THE EPA'S EFFORTS TO COMPILE AND PROMULGATE DESIGN AND OPERATIONAL INFORMATION CONCERNING THE USE OF OZONE DISINFECTION OF UV LIGHT DISINFECTION IN PLACE OF CHLORINE DISINFECTION FOR WASTEWATER EFFLUENTS, A SERIES OF ON-SITE EVALUATIONS WERE CONDUCTED AT SEVEN MUNICIPAL WASTEWATER TREATMENT PLANTS THAT HAVE OR ARE USING OZONE FOR THE DISINFECTION, FIVE WATER TREATMENT PLANTS USING OZONE FOR DISINFECTION AND/OR ODOR CONTROL, AND THREE MUNICIPAL WASTEWATER TREATMENT PLANTS THAT HAVE USED OR ARE USING UV DISINFECTION. DURING THESE PLANT VISITS OPERATING DATA WERE REVIEWED, OPERATIONAL PRACTICES OBSERVED, AND OPERATING PERSONNEL WERE INTERVIEWED IN ORDER TO ESTABLISH O AND M CAUSATIVE FACTORS RELATING TO POOR AND EFFICIENT PROCESS PERFORMANCE. THE TYPICAL O AND M PROBLEMS HAVE BEEN LISTED AND THE RECOMMENDED REMEDIAL ACTIONS NECESSARY TO CORRECT THESE PROBLEMS ARE PRESENTED IN THE PAPER.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011317

PUBLICATION DATE: DEC 83

TITLE: METHODS AND RESULTS OF EPA'S (ENVIRONMENTAL
PROTECTION AGENCY'S) STUDY OF RADON IN DRINKING WATER.

PERSONAL AUTHOR: HORTON, T. R.

DESCRIPTOR: *DRINKING WATER; *GROUNDWATER; *RADON;
*RESEARCH REPORTS; *SURVEYS; *WATER TREATMENT; *WATER
QUALITY

DESCRIPTIVE NOTE: 33P. PRICE CODE: PC A03/MF A01. ORDER
NO.: PB84-187269

ABSTRACT: IN 1978, THE ENVIRONMENTAL PROTECTION AGENCY (EPA), THROUGH ITS EASTERN ENVIRONMENTAL RADIATION FACILITY (EERF), BEGAN SAMPLING RADON IN DRINKING WATER. DURING THE NEXT TWO TO THREE YEARS, APPROXIMATELY 27 STATES WERE INCLUDED IN THIS PILOT STUDY, THE PURPOSE OF WHICH WAS TO DETERMINE THE NEED FOR A NATIONWIDE STUDY OF RADON IN DRINKING WATER, TO DEMONSTRATE THE FEASIBILITY OF SUCH A STUDY, AND TO DEVELOP A LIMITED DATA BASE OF RADON IN DRINKING WATER NATIONWIDE. THE SUBJECT OF THIS PAPER IS THE NATIONWIDE STUDY THAT DEVELOPED FROM THAT PILOT STUDY. SAMPLES FROM MORE THAN 2500 PUBLIC WATER SUPPLIES REPRESENTING 35 STATES WERE COLLECTED. FOR THE MOST PART, SAMPLES WERE FROM PUBLIC GROUNDWATER SUPPLIES SERVING 1000 OR MORE PEOPLE. ALTHOUGH ONLY ABOUT FIVE PERCENT OF THE TOTAL NUMBER OF GROUNDWATER SUPPLIES IN THE 48 CONTIGUOUS STATES OF THE U.S. WERE SAMPLED, THOSE SAMPLES REPRESENT NEARLY 45 PERCENT OF THE WATER CONSUMED BY THE U.S. GROUNDWATER USERS IN THE 48 CONTIGUOUS STATES. THE INTENT WAS TO COLLECT SAMPLES THAT REPRESENTED WHAT PEOPLE ACTUALLY

CONSUME FROM A GIVEN PUBLIC GROUNDWATER SUPPLY.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011318

PUBLICATION DATE: JUL 83

TITLE: GUIDANCE MANUAL FOR SEWERLESS SANITARY DEVICES AND
RECYCLING METHODS.

DESCRIPTOR: *APPROPRIATE TECHNOLOGY; COSTS; *MANUALS;
*OPERATIONS (WASTEWATER); *ONSITE WASTEWATER TREATMENT;
*RURAL AREAS; SANITATION; *TECHNOLOGY; *WASTE DISPOSAL;
*WASTEWATER TREATMENT; WATER CONSERVATION

DESCRIPTIVE NOTE: 210P. PRICE CODE: PC A10/MF A01. ORDER
NO.: PB84-188127

ABSTRACT: THIS MANUAL PROVIDES TECHNICAL INFORMATION AND CRITERIA FOR SELECTING PRACTICAL, EFFECTIVE, AND AFFORDABLE ONSITE SYSTEMS FOR WASTE WATER TREATMENT AND DISPOSAL. GUIDELINES FOR SELECTING AN ONSITE SYSTEM ADDRESS COMMON PROBLEMS ENCOUNTERED, ALTERNATIVES TO CONVENTIONAL SEPTIC TANK/SOIL ABSORPTION SYSTEMS, AND EFFECTIVE COMBINATIONS OF IN - HOUSE MODIFICATIONS AND ONSITE TREATMENT AND DISPOSAL OPTIONS. THE MANUAL ALSO PRESENTS DATA ON HOUSEHOLD WASTE WATER FLOW AND CHARACTERISTICS. SEPARATE CHAPTERS FOCUS ON THE FOLLOWING DEVICES AND SYSTEMS: SIMPLE FLOW REDUCTION DEVICES SUCH AS FAUCETS, TOILET TANK INSERTS, FLUSH MECHANISMS, SHOWERHEADS, FLOW RESTRICTORS; LOW FLUSH TOILETS; COMPOSTING TOILETS; OIL FLUSH AND CHEMICAL TOILETS; INCINERATING TOILETS; AND WASTE WATER AND REUSE SYSTEMS. WHILE THE GUIDE EMPHASIZES SYSTEMS FOR SINGLE DWELLINGS AND SMALL CLUSTERS UP TO 10 - 12 HOUSING UNITS, IT ALSO EXAMINES ONSITE SYSTEMS FOR MULTIFAMILY UNITS AND COMMERCIAL OR INSTITUTIONAL ESTABLISHMENTS. DRAWINGS, TABLES, GRAPHS, AND REFERENCES ACCOMPANY EACH CHAPTER. THE APPENDICES CONTAIN A GLOSSARY, A LITERATURE REVIEW, AN EXTENSIVE BIBLIOGRAPHY, AND SURVEYS OF MANUFACTURERS - DISTRIBUTORS, REGULATION AGENCIES, SPECIAL INTEREST GROUPS, AND A FIELD MONITORING PROJECT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011319

PUBLICATION DATE: JUL 83

TITLE: GUIDANCE MANUAL FOR SEWERLESS DEVICES AND RECYCLING
METHODS: SUMMARY.

DESCRIPTOR: *APPROPRIATE TECHNOLOGY; COSTS; *MANUALS;
*OPERATIONS (WASTEWATER); *ONSITE WASTEWATER TREATMENT;
*RURAL AREAS; SANITATION; *TECHNOLOGY; WASTE DISPOSAL;
*WASTEWATER TREATMENT; WATER CONSERVATION

DESCRIPTIVE NOTE: 35P. PRICE CODE: PC A03/MF A01. ORDER

NO.: PB84-188267

ABSTRACT: THIS GUIDANCE MANUAL PROVIDES TECHNICAL INFORMATION AND CRITERIA FOR SELECTING PRACTICAL, EFFECTIVE AND AFFORDABLE ONSITE WASTEWATER TREATMENT AND DISPOSAL SYSTEMS. IT IS INTENDED TO ASSIST HOMEOWNERS, BUILDERS, AND HEALTH OFFICIALS IN RURAL AND SEMIRURAL AREAS. THE INFORMATION PROVIDES A SURVEY OF THE CURRENT IN-HOUSE WATER CONSERVATION AND WASTE REDUCTION TECHNOLOGIES. THESE INCLUDE SIMPLE FLOW REDUCTION DEVICES, SUCH AS FAUCETS, TOILET TANK INSERTS, AND FLOW RESTRICTORS; LOW FLUSH TOILETS; COMPOSTING TOILETS; OIL FLUSH AND CHEMICAL TOILETS; INCINERATING TOILETS; AND WASTEWATER RECYCLE AND REUSE SYSTEMS. ALSO DISCUSSED ARE SELECTION AND MANAGEMENT CONSIDERATIONS FOR IN-HOUSE MODIFICATIONS AND ONSITE SYSTEMS. A GLOSSARY IS PROVIDED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011320

PUBLICATION DATE: JUL 83

TITLE: DEVELOPMENT AND APPLICATION OF MODELS FOR PLANNING OPTIMAL WATER REUSE.

PERSONAL AUTHOR: MAYS, L. W.; AND OTHERS

DESCRIPTOR: COSTS; *MODELS; *PLANNING; *RECYCLING; WATER; *WATER REUSE; *WATER SUPPLY; *WASTEWATER; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 189P. PRICE CODE: PC A09/MF A01. ORDER NO.: PB84-153527

ABSTRACT: WATER REUSE PLANNING MODELS HAVE BEEN DEVELOPED FOR DETERMINING THE OPTIMUM ALLOCATION OF WATER AND REUSE OF WASTEWATER ON A REGIONAL BASIS FOR SINGLE AND MULTI-PERIOD PLANNING THAT MINIMIZES THE OVERALL COST OF WATER SUPPLY. BOTH WATER QUANTITY AND WATER QUALITY PARAMETERS OF VARIOUS SOURCES OF FLOWS CAN BE CONSIDERED. WASTEWATER FOR ALL USE SECTORS, ALONG WITH FRESHWATER, CAN BE CONSIDERED AS CANDIDATE SOURCE OR ORIGINS OF WATER. THE MODELS CONSIDER THE CAPACITY EXPANSION OF TREATMENT FACILITIES AND ALLOW FOR ECONOMIES OF SCALE IN TREATMENT AND TRANSPORTATION THROUGH THE USE OF NONLINEAR OBJECTIVE FUNCTIONS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011321

PUBLICATION DATE: MAY 78

TITLE: BASIC WATER MONITORING PROGRAM.

DESCRIPTOR: *EPA; *MONITORING; *POLLUTANTS; *STATE MONITORING PROGRAMS; *TOXIC SUBSTANCES; *WATER; *WATER QUALITY

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DESCRIPTIVE NOTE: 57P. PRICE CODE: PC A04/MF A01. ORDER NO.: PB84-178466

ABSTRACT: THE BASIC WATER MONITORING PROGRAM WAS DEVELOPED TO BRING STRUCTURE AND ORDER TO STATE MONITORING PROGRAMS IN RESPONSE TO PUBLIC LAW 92-500. (1) THE PROGRAM IS DESIGNED TO REDIRECT STATE MONITORING FROM FIXED-STATION SINGLE DISCHARGE TO AN EXTENSIVE SURVEY APPROACH. (2) IDENTIFY DISCHARGERS AND ASSESS THEIR WATER QUALITY IMPACT. (3) DEFINE NUMBER AND TYPE OF STATIONS OPERATED BY STATES. (4) PROVIDE A COORDINATED NATIONWIDE ASSESSMENT OF SELECTED TOXIC POLLUTANTS. (5) ENSURE THAT DATA COLLECTED ARE USED IN DECISION-MAKING PROCESSES AND TO EDUCATE THE PUBLIC AND INFORM THE CONGRESS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011322

PUBLICATION DATE: DEC 83

TITLE: FIELD METHODS AND STATISTICAL ANALYSES FOR MONITORING SMALL SALMONID STREAMS.

PERSONAL AUTHOR: ARMOUR, C. L.; AND OTHERS

DESCRIPTOR: *DATA EVALUATION; *ENVIRONMENTAL IMPACTS; *FIELD METHODS; *LAND USE; *MONITORING; *STATISTICS; *STREAMS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 210P. PRICE CODE: PC A10/MF A01. ORDER NO.: PB84-178623

ABSTRACT: THIS PUBLICATION CONTAINS INFORMATION PERTAINING TO MONITORING PROGRAMS WHICH MAY BE USED TO EVALUATE THE EFFECTS OF LAND USE PRACTICES ON SMALL SALMONID STREAMS IN THE WESTERN UNITED STATES. INFORMATION INCLUDES AN APPROACH FOR DESIGNING A MONITORING PROGRAM, VARIABLES WHICH MAY BE USED WITH FIELD MEASUREMENT TECHNIQUES, AND STATISTICAL TESTS FOR EVALUATING DATA.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011323

PUBLICATION DATE: FEB 84

TITLE: NAVY ELECTROPLATING POLLUTION CONTROL TECHNOLOGY ASSESSMENT MANUAL.

PERSONAL AUTHOR: CUSHNIE, G. C., JR.

DESCRIPTOR: *CHEMICALS; *COSTS; *EFFLUENT; *ELECTROPLATING; *GUIDES; *POLLUTION CONTROL; U.S. NAVY; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 256P. PRICE CODE: PC A12/MF A01. ORDER NO.: AD-A140 336/9

74

ABSTRACT: THE REPORT PROVIDES INFORMATION ON MORE THAN 27 SEPARATE TECHNOLOGIES ENCOMPASSING CONVENTIONAL TREATMENT, ALTERNATE TREATMENT, MATERIAL RECOVERY TECHNIQUES AND PROCESSES AND NEW PLATING BATH FORMULATIONS. IN ADDITION, THE INCORPORATION OF A SECTION ON IN-PLANT PROCESS CHANGES ENHANCES THE USEFULNESS OF THE PRODUCT IN THAT IT HIGHLIGHTS NONCAPITAL-INTENSIVE CHANGES TO CURRENT PRACTICES AND/OR PROCESSES THAT MAY HAVE SIGNIFICANT BEARING ON REDUCING OVERALL CHEMICAL AND WATER USAGE COSTS AS WELL AS CONSEQUENT WASTEWATER TREATMENT NEEDS AND DISPOSAL COSTS. THIS DOCUMENT WAS PREPARED AS A JOINT AIR FORCE-NAVY EFFORT. IT IS INTENDED TO SERVE AS A GUIDE FOR TECHNICAL PERSONNEL MAKING DECISIONS ON AN APPROPRIATE MEANS OF MEETING EFFLUENT LIMITS. THE SELECTION OF ANY OF THE DESCRIBED TECHNOLOGIES SHOULD BE DONE ONLY AFTER A RIGOROUS IDENTIFICATION OF SITE REQUIREMENTS HAS BEEN PERFORMED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011324

PUBLICATION DATE: JUN 83

TITLE: NITRATE REMOVAL FOR SMALL PUBLIC WATER SYSTEMS.

DESCRIPTOR: *COSTS; *DRINKING WATER; *HANDBOOKS; *OPERATIONS (WATER); *NITRATES; *NITRATE REMOVAL; *WATER SUPPLY; *WATER TREATMENT

DESCRIPTIVE NOTE: 93P. PRICE CODE: PC A05/MF A01. ORDER NO.: PB84-193044

ABSTRACT: THIS HANDBOOK FOR NITRATE REMOVAL HAS BEEN PREPARED TO AID WATER UTILITY OWNERS, ENGINEERS, OPERATORS, AND MUNICIPAL MANAGERS IN UNDERSTANDING AND DEALING WITH EXCESSIVE NITRATE LEVELS IN THEIR WATER SUPPLY. IT IS INTENDED TO BE USED FOR DEFINING THE PROBLEM, DEVELOPING OR EVALUATING PROPOSED SOLUTIONS, AND EXPLAINING TO WATER CONSUMERS WHY NITRATES ARE CONTROLLED AND WHAT THE APPROXIMATE COSTS OF CONTROL WILL BE. THIS HANDBOOK IS DESIGNED AS A TECHNICAL GUIDE TO NITRATE REMOVAL FOR THOSE SMALLER SIZE SYSTEMS THAT HAVE DECIDED THAT NITRATE CONTROL IS DESIRABLE. THIS DOCUMENT CONTAINS NO REGULATORY POLICY AND DOES NOT OBLIGATE SYSTEMS TO USE ANY TREATMENT OR NONTREATMENT TECHNIQUE TO REDUCE NITRATE CONCENTRATIONS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011325

PUBLICATION DATE: APR 84

TITLE: EPA 1983 PORTLAND GIARDIA CONFERENCE HELD ON NOVEMBER 14, 15, AND 16, 1983.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *GIARDIA; *GIARDIASIS; *DRINKING WATER; *MONITORING; *PUBLIC HEALTH; *RESEARCH NEEDS; *REGULATIONS; *WATER TREATMENT; *WATER POLLUTION

CONTROL

DESCRIPTIVE NOTE: 94P. PRICE CODE: PC A05/MF A01. ORDER NO.: PB84-187186

ABSTRACT: THE 1983 PORTLAND GIARDIA CONFERENCE WAS HELD ON NOVEMBER 14, 15 AND 16, 1983 IN PORTLAND, OREGON. NATIONAL EXPERTS ON GIARDIA AND GIARDIASIS WERE INVITED, AS WELL AS STATE AND LOCAL WATER OFFICIALS AND PURVEYORS. THE PEOPLE ATTENDING HAD TWO ROLES: TO HEAR PRESENTATIONS AND TO WORK TOGETHER AS CONTRIBUTING EXPERTS IN SMALL GROUPS ON GIARDIA-RELATED TOPICS. THE TOPICS WERE AS FOLLOWS: PUBLIC INFORMATION, TESTING FOR GIARDIA IN WATER, FINANCING FOR WATER SYSTEM IMPROVEMENTS, WATER SYSTEM EVALUATION/RISK EVALUATION, CONTROL MEASURES FOR GIARDIA IN WATER SYSTEMS, SURVEILLANCE FOR WATERBORNE GIARDIASIS, FUTURE REGULATORY REQUIREMENTS, AND FUTURE RESEARCH NEEDS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011326

PUBLICATION DATE: 84

TITLE: FUNDAMENTAL RESEARCH NEEDS FOR WATER AND WASTEWATER SYSTEMS. PROCEEDINGS OF THE AEEP/NSF (ASSOCIATION OF ENVIRONMENTAL ENGINEERING

PERSONAL AUTHOR: DICIANO, F. A.; AND OTHERS

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *MANAGEMENT; *OPERATIONS (WATER); *OPERATIONS (WASTEWATER); *RESEARCH NEEDS; *RESEARCH; *TECHNOLOGY; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 132P. PRICE CODE: PC A07/MF A01. ORDER NO.: PB84-192764

ABSTRACT: PAPERS DELIVERED AT THE CONFERENCE ARE ORGANIZED INTO THE FOLLOWING CATEGORIES: RESEARCH PRIORITIES AND FUNDING AS VIEWED BY GRANTING AGENCIES; ASSESSING THE IMPACT OF FUNDAMENTAL RESEARCH ON THE PRACTICE OF ENVIRONMENTAL ENGINEERING; THE IMPACT OF FUNDAMENTAL RESEARCH AS VIEWED BY THE USERS; AND FUNDAMENTAL RESEARCH NEEDS IN WATER MANAGEMENT, WASTEWATER MANAGEMENT, AND IN FATE OF POLLUTANTS. THE IMPORTANCE OF UNDERSTANDING THE PHYSICAL, CHEMICAL, BIOLOGICAL, AND ECOLOGICAL PROPERTIES OF WATERS, WASTEWATERS, RECEIVING WATERS, AND TREATMENT SYSTEMS, IS EMPHASIZED. IT IS RECOMMENDED THAT NON-STEADY STATE, MULTI-PHASE AND MULTI-MEDIA MODELS BE GENERATED AND THAT APPLICABLE HYDRODYNAMIC DATA AND RATE COEFFICIENTS BE DETERMINED. CONFERENCE PARTICIPANTS ARE LISTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011327

PUBLICATION DATE: 84

TITLE: STRUCTURAL CONCRETE COST ESTIMATING.

PERSONAL AUTHOR: CLARK, JOHN E.

DESCRIPTOR: *CONSTRUCTION; *COSTS; *COST ESTIMATING;
*FACILITIES; *ENGINEERING; *STRUCTURAL CONCRETE

DESCRIPTIVE NOTE: 298P. PRICE: \$29.95

ABSTRACT: ACCURATE COST ESTIMATES ARE AN IMPORTANT PART OF ANY DESIGN PROCESS. THIS BOOK EXPLORES THE WAYS OF IMPROVING ESTIMATING PROCEDURES BY EXAMINING THE MANY FACTORS THAT INFLUENCE COSTS. THERE IS A DISCUSSION OF "TAKE-OFFS" AND COST DEVELOPMENTS. FORMWORK, CONCRETE, AND SEVERAL DESIGN EXAMPLES ARE PROVIDED AS WELL AS NUMEROUS CHARTS, TABLES, DRAWINGS, AND OTHER ILLUSTRATIONS.

AVAILABILITY: MCCRAW-HILL BOOK COMPANY, 1221 AVENUE OF THE AMERICAS, NEW YORK, NY 10020

IRIS ACCESSION NUMBER: EW011328

PUBLICATION DATE: MAY 84

TITLE: UTILITY MANAGER'S GUIDE TO FINANCIAL PLANNING.

DESCRIPTOR: *ACCOUNTING; *BUDGETING; *FINANCING;
*MANAGEMENT; *MANUALS; *REVENUE GENERATION; *UTILITIES;
*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 81P. PRICE: \$5.86

ABSTRACT: THIS GUIDE WAS DEVELOPED TO PROVIDE UTILITY MANAGERS AND MUNICIPAL OFFICIALS WITH AN OVERVIEW OF THE ELEMENTS OF FINANCIAL PLANNING AND THE FINANCIAL MANAGEMENT PROCESS NECESSARY TO SUPPORT A WASTEWATER UTILITY OPERATION AND KEEP IT SELF-SUSTAINING. THIS MANUAL IS DESIGNED TO HELP THE WASTEWATER SYSTEM OWNER/MANAGER UNDERSTAND THE FINANCIAL MANAGEMENT PROCESS. TO ACCOMPLISH THIS, THERE ARE SECTIONS ON EACH MAJOR ELEMENT OF A FINANCIAL MANAGEMENT PROCESS, INCLUDING: GENERAL UTILITY PLANNING; FINANCING; BUDGETING; REVENUE GENERATION; AND ACCOUNTING AND INFORMATION SYSTEMS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW011329

PUBLICATION DATE: MAR 84

TITLE: FINANCIAL CAPABILITY GUIDEBOOK.

DESCRIPTOR: *CONSTRUCTION GRANTS PROGRAM; *COSTS;
*FACILITIES; *FINANCIAL CAPABILITY; *GUIDEBOOKS; *GRANT
APPLICATIONS; *OPERATIONS (WASTEWATER); *PLANNING; *USEPA;
*WASTEWATER TREATMENT

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DESCRIPTIVE NOTE: 91P. PRICE: \$1.50 EACH

ABSTRACT: THIS PUBLICATION IS DESIGNED TO ASSIST A COMMUNITY AS IT CONSIDERS THE COMMITMENT OF PUBLIC FUNDS TO CONSTRUCT WASTEWATER FACILITIES. THE INTENT OF THE DOCUMENT IS TO HELP DEMONSTRATE FINANCIAL CAPABILITY FOR COMMUNITIES APPLYING FOR STEP 3 OR 2+3 GRANTS FROM THE FEDERAL CONSTRUCTION GRANTS PROGRAM. IT IS WRITTEN ESPECIALLY FOR COMMUNITIES WITH POPULATIONS OF 10,000 OR LESS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200 CHAMBERS RD., ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW011330

PUBLICATION DATE: AUG 84

TITLE: WINTER WATER AND WASTEWATER OPERATIONS.

PERSONAL AUTHOR: SZELC, GARY W.

DESCRIPTOR: *CLIMATE; *DESIGN; *TEMPERATURE; *MAINTENANCE;
*PREVENTIVE MAINTENANCE; *OPERATIONS (WATER); *OPERATIONS
(WASTEWATER); *SURVEYS; *WATER TREATMENT; *WASTEWATER
TREATMENT

DESCRIPTIVE NOTE: 62-64P.

ABSTRACT: RESULTS OF A SURVEY OF WATER AND WASTEWATER OPERATIONS IN NORTHERN CITIES REVIEWS COLD WEATHER PROBLEMS AND SOLUTIONS.

AVAILABILITY: PUBLIC WORKS; V115 N8

IRIS ACCESSION NUMBER: EW011331

PUBLICATION DATE: AUG 84

TITLE: TREATMENT PLANT HEATING REQUIREMENTS TRIMMED.

PERSONAL AUTHOR: HELCOTH, ROGER M.; ARNOLD, CHARLES C.

DESCRIPTOR: *COSTS; *DESIGN; *ENERGY CONSERVATION; *FUEL;
*HEATING; *NEBRASKA; *OPERATIONS (WASTEWATER); *WASTEWATER
TREATMENT

DESCRIPTIVE NOTE: 68-69P.

ABSTRACT: USE OF A HEAT PUMP AND OTHER ENERGY SAVING DEVICES CUT FUEL BILLS AT A NEBRASKA WASTEWATER TREATMENT PLANT.

AVAILABILITY: PUBLIC WORKS; V115 N8

78

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IRIS ACCESSION NUMBER: EW011332

PUBLICATION DATE: AUG 84

TITLE: SEWER MAINTENANCE IN WINTER WEATHER.

DESCRIPTOR: *CLIMATE; *EQUIPMENT; *MAINTENANCE; *OPERATIONS
(WASTEWATER); *SEWERS; *WASTEWATER COLLECTION; *WISCONSIN

DESCRIPTIVE NOTE: 70P.

ABSTRACT: A SPECIALLY WINTERIZED MACHINE PROVIDES SEWER MAINTENANCE ON A YEAR-ROUND BASIS IN WISCONSIN.

AVAILABILITY: PUBLIC WORKS; V115 N8

IRIS ACCESSION NUMBER: EW011333

PUBLICATION DATE: AUG 84

TITLE: CUSTOM TAILORING A WATER AND WASTEWATER TESTING LABORATORY.

PERSONAL AUTHOR: MORGAN, JOHN R.; BIRKBECK, RONALD G.

DESCRIPTOR: *CONSTRUCTION; *DESIGN; CHEMICAL ANALYSES;
*FACILITIES; *LABORATORIES; MICROBIOLOGY; *WATER TREATMENT;
*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 71-73P.

ABSTRACT: DESCRIBED IS A WATER AND WASTEWATER TESTING LABORATORY FOR A SMALL CITY IN OHIO. THE FACILITY WAS DESIGNED TO COMPLY WITH EPA REGULATIONS AND TO HANDLE TESTING NEEDED.

AVAILABILITY: PUBLIC WORKS; V115 N8

IRIS ACCESSION NUMBER: EW011334

PUBLICATION DATE: MAY 79

TITLE: APPLICABILITY OF LAND TREATMENT OF WASTEWATER IN THE GREAT LAKES AREA BASIN: EFFECTIVENESS OF SANDY SOILS AT MUSKEGON COUNTY, MICH

PERSONAL AUTHOR: ELLIS, B. G.; AND OTHERS

DESCRIPTOR: *CONTAMINATION; *ENVIRONMENTAL EFFECTS; *LAND APPLICATION; *MICHIGAN; *PERFORMANCE EVALUATION; *OPERATIONS (WASTEWATER); *RESEARCH; *SOILS; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 166P. ORDER NO.: PB 299657

ABSTRACT: LAND APPLICATION OF WASTEWATER IS ONE OF THE MANAGEMENT OPTIONS FOR UPGRADING WATER AFTER USE. AN INTENSIVE THREE-YEAR STUDY WAS COMPLETED OF A LARGE LAND APPLICATION IN MUSKEGON COUNTY, MICHIGAN. THIS IS ONE OF THE REPORTS RELEASED ON THE STUDY. THIS REPORT PROVIDES DATA ON

SOIL ANALYSES AS A RESULT OF THE LAND APPLICATION OF WASTEWATER.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011335

PUBLICATION DATE: MAY 79

TITLE: APPLICABILITY OF LAND TREATMENT OF WASTEWATER IN THE GREAT LAKES AREA BASIN: IMPACT OF WASTEWATER DIVERSION, SPRAY IRRIGATION ON W

PERSONAL AUTHOR: FREEDMAN, P. L.; AND OTHERS

DESCRIPTOR: *DIVERSION PROJECTS; *LAKES; *LAND APPLICATION; *MICHIGAN; *NUTRIENTS; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *RESEARCH; *SURFACE WATERS; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 260P. ORDER NO.: PB 299602

ABSTRACT: LAND APPLICATION OF WASTEWATER IS ONE OF THE MANAGEMENT OPTIONS FOR UPGRADING WATER AFTER USE. AN INTENSIVE THREE-YEAR STUDY WAS COMPLETED OF A LARGE LAND APPLICATION IN MUSKEGON COUNTY, MICHIGAN. THIS IS ONE OF THREE REPORTS RELEASED ON THE STUDY. PARTICULAR EMPHASIS IN THIS STUDY WAS PLACED ON AN ANALYSIS OF THE EFFECTS OF THE DIVERSION PROJECT ON THE TROPHIC STATUS AND NUTRIENT BUDGETS OF SEVERAL LAKES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011337

PUBLICATION DATE: DEC 83

TITLE: CONSTRUCTION GRANTS DELEGATION AND OVERVIEW GUIDANCE.

DESCRIPTOR: *CONSTRUCTION GRANTS; *CLEAN WATER ACT; *DELEGATION AGREEMENT MANAGEMENT; *FACILITIES; *GUIDELINES; *MANAGEMENT; *OVERVIEW PROCESS; *REPORTING; *REGULATORY REQUIREMENTS; *USEPA; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 55P.

ABSTRACT: THE PURPOSE OF THIS DOCUMENT IS TO INTEGRATE INTO ONE PACKAGE ALL THE RELEVANT REGULATORY REQUIREMENTS, POLICY, AND GUIDANCE FOR THE MANAGEMENT OF THE CONSTRUCTION GRANTS PROGRAM DELEGATION UNDER SECTION 205(C) OF THE CLEAN WATER ACT. THIS DOCUMENT SUPERCEDES POM 78-S ISSUED IN 1978. FOUR MAJOR ISSUES CRITICAL TO CONSTRUCTION GRANTS PROGRAM OPERATIONS ARE CONSIDERED: (1) THE OVERVIEW PROCESS; (2) DELEGATION AGREEMENT MANAGEMENT; (3) SPECIAL REGULATORY REQUIREMENTS; AND (4) NATIONAL INFORMATION NEEDS AND REPORTING.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011338

PUBLICATION DATE: FEB 78

TITLE: LAND TREATMENT AND REUSE OF SEWAGE EFFLUENT BY
IRRIGATION: A PERSPECTIVE FOR HAWAII.

PERSONAL AUTHOR: LAU, L. STEPHEN

DESCRIPTOR: *EFFLUENTS; *HAWAII; *IRRIGATION; *OPERATIONS
(WASTEWATER); *PERFORMANCE EVALUATION; *RECYCLING; *SLUDGE;
*WATER REUSE; *WATER USE; *WATER QUALITY; *WASTEWATER
TREATMENT; *WATER RESOURCES

DESCRIPTIVE NOTE: 47P.

ABSTRACT: THIS BULLETIN WAS PREPARED AS ONE OF A SERIES OF
REPORTS TO HELP SUPPLY DETAILED INFORMATION CONCERNING
STUDIES AND PRACTICES INVOLVING THE USE AND REUSE OF
MUNICIPAL EFFLUENTS AND SLUDGES. THIS PUBLICATION PRESENTS
INFORMATION FOR HAWAII.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011339

PUBLICATION DATE: 75

TITLE: USA/USSR SYMPOSIUM: HANDLING, TREATMENT AND
DISPOSAL OF WASTEWATER SLUDGE (MOSCOW, USSR, MAY 13-16,
1975).

DESCRIPTOR: *CONFERENCE REPORTS; *INDUSTRIAL WASTES;
*MUNICIPAL WASTES; *OPERATIONS (WASTEWATER); *RESEARCH;
*SLUDGE; *SYMPOSIA; *WASTE DISPOSAL; *WASTEWATER TREATMENT;
*USA/USSR SYMPOSIUM

DESCRIPTIVE NOTE: 148P. ORDER NO.: PB 266701/AS

ABSTRACT: THE FIRST COOPERATIVE USA/USSR SYMPOSIUM ON
MUNICIPAL AND INDUSTRIAL WASTEWATER SLUDGE WAS HELD IN
MOSCOW IN 1975. OF THE 18 PAPERS PRESENTED, 16 ARE INCLUDED
IN THIS PUBLICATION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011340

PUBLICATION DATE: NOV 75

TITLE: USA/USSR SYMPOSIUM ON PHYSICAL-CHEMICAL TREATMENT
FROM MUNICIPAL AND INDUSTRIAL SOURCES (CINCINNATI, OH,
NOVEMBER 12-14, 1975).

DESCRIPTOR: *CHEMICAL TREATMENT; *CONFERENCE REPORTS;
*INDUSTRIAL WASTES; *MUNICIPAL WASTES; *OPERATIONS
(WASTEWATER); *PHYSICAL TREATMENT; *RESEARCH; *WASTE
DISPOSAL; *SYMPOSIA; *WASTEWATER TREATMENT; *USA/USSR
SYMPOSIUM

DESCRIPTIVE NOTE: 176P. ORDER NO.: PB 266702/AS

ABSTRACT: THE SECOND COOPERATIVE USA/USSR SYMPOSIUM ON
PHYSICAL-CHEMICAL TREATMENT OF WASTEWATER FROM MUNICIPAL AND
INDUSTRIAL SOURCES WAS HELD IN 1975. THE 16 PAPERS PRESENTED
AT THIS CONFERENCE AND TWO PAPERS PRESENTED IN AN EARLIER
CONFERENCE IN 1975 ARE INCLUDED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011341

PUBLICATION DATE: AUG 76

TITLE: USA/USSR SYMPOSIUM ON INTENSIFICATION OF BIO-
CHEMICAL TREATMENT OF WASTEWATERS.

DESCRIPTOR: *BIOCHEMICAL TREATMENT; *CONFERENCE
PROCEEDINGS; *BIOLOGICAL TREATMENT; *CHEMICAL TREATMENT;
*INDUSTRIAL WASTES; *MUNICIPAL WASTES; *OPERATIONS
(WASTEWATER); *RESEARCH; *SYMPOSIA; *WASTEWATER TREATMENT;
*USA/USSR SYMPOSIUM

DESCRIPTIVE NOTE: 87P. ORDER NO.: PB 266703/AS

ABSTRACT: THE THIRD COOPERATIVE SYMPOSIUM ON THE
INTENSIFICATION OF BIOCHEMICAL TREATMENT OF WASTEWATERS FROM
MUNICIPAL AND INDUSTRIAL SOURCES WAS HELD IN 1976. THE 18
PAPERS PRESENTED ARE INCLUDED IN THIS PUBLICATION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011342

PUBLICATION DATE: APR 77

TITLE: USA/USSR SYMPOSIUM ON PHYSICAL - MECHANICAL
TREATMENT OF WASTE WATERS (CINCINNATI, OH, USA, APRIL 5-6,
1977).

DESCRIPTOR: *CONFERENCE REPORTS; *MECHANICAL METHODS;
*INDUSTRIAL WASTES; *MUNICIPAL WASTES; PHYSICAL TREATMENT;
*OPERATIONS (WASTEWATER); *RESEARCH; *SYMPOSIA; *WASTEWATER
TREATMENT; *USA/USSR SYMPOSIA

DESCRIPTIVE NOTE: 144P. ORDER NO.: PB 274663/AS

ABSTRACT: THE FOURTH COOPERATIVE USA/USSR SYMPOSIUM ON THE
PHYSICAL-MECHANICAL METHODS OF WASTEWATER TREATMENT WAS HELD
IN 1977. THE 13 PAPERS PRESENTED ARE INCLUDED IN THIS
PUBLICATION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011343

PUBLICATION DATE: APR 78

TITLE: USA/USSR SYMPOSIUM ON RECYCLING WATER SUPPLY SYSTEMS
AND REUSE OF TREATED WATER AT INDUSTRIAL PLANTS (MOSCOW,
USSR, SEPTEMBER 12-13

DESCRIPTOR: *CONFERENCE REPORTS; *INDUSTRIAL WASTES;
*MUNICIPAL WASTES; *OPERATIONS (WASTEWATER); *RECYCLING;
*RESEARCH; *SYMPOSIA; *WATER RESOURCES; *WASTEWATER
TREATMENT; *WATER REUSE; *USA/USSR SYMPOSIA

DESCRIPTIVE NOTE: 64P. ORDER NO.: PB 289865

ABSTRACT: THE FIFTH COOPERATIVE USA/USSR SYMPOSIUM ON
RECYCLING WATER SUPPLY SYSTEMS AND REUSE OF TREATED WATER AT
INDUSTRIAL PLANTS WAS HELD IN 1977. THIS PUBLICATION
CONTAINS 14 PAPERS PRESENTED AT THAT CONFERENCE.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011344

PUBLICATION DATE: NOV 78

TITLE: USA/USSR SYMPOSIUM ON ADVANCED EQUIPMENT AND
FACILITIES FOR WASTEWATER TREATMENT.

DESCRIPTOR: ADVANCED TREATMENT; *CONFERENCE REPORTS;
*EQUIPMENT; *FACILITIES; *INDUSTRIAL WASTES; *MUNICIPAL
WASTES; *OPERATIONS (WASTEWATER); *RESEARCH; *SYMPOSIA;
*TECHNOLOGY; *WASTEWATER TREATMENT; *USA/USSR SYMPOSIUM

DESCRIPTIVE NOTE: 77P. ORDER NO.: PB 290996/AS

ABSTRACT: THE SIXTH COOPERATIVE USA/USSR SYMPOSIUM ON
ADVANCED EQUIPMENT AND FACILITIES FOR WASTEWATER TREATMENT
WAS HELD IN 1978. THIS PUBLICATION CONTAINS THE 11 PAPERS
PRESENTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011345

PUBLICATION DATE: NOV 79

TITLE: USA/USSR SYMPOSIUM ON ADVANCED TREATMENT OF
BIOLOGICALLY TREATED EFFLUENTS INCLUDING NUTRIENTS REMOVAL.

DESCRIPTOR: *ADVANCED TREATMENT; *BIOLOGICAL TREATMENT;
*CONFERENCE REPORTS; *INDUSTRIAL WASTES; *MUNICIPAL WASTES;
*LAND TREATMENT; *NUTRIENTS; *OPERATIONS (WASTEWATER);

*RESEARCH; *SYMPOSIA; *TERTIARY TREATMENT; *WASTEWATER
TREATMENT; *USA/USSR SYMPOSIUM; *EFFLUENTS

DESCRIPTIVE NOTE: 100P. ORDER NO.: PB 80115801

ABSTRACT: THE SEVENTH COOPERATIVE USA/USSR SYMPOSIUM ON
ADVANCED TREATMENT OF BIOLOGICALLY TREATED EFFLUENTS,
INCLUDING NUTRIENTS REMOVAL WAS HELD IN 1978. THIS
PUBLICATION CONTAINS THE 12 PAPERS PRESENTED.

IRIS ACCESSION NUMBER: EW011346

PUBLICATION DATE: JUN 84

TITLE: GROUNDWATER: A COMMUNITY ACTION GUIDE.

PERSONAL AUTHOR: BOYD, SUSAN, ED.; AND OTHERS

DESCRIPTOR: CONTAMINATION; *GROUNDWATER; DETECTION; FEDERAL
ROLE; *LEGISLATION; MONITORING; *MANAGEMENT; *PLANNING;
*PUBLIC PARTICIPATION; *PUBLIC HEALTH; STATE ROLE; *WATER
QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 22P. PRICE: \$1 FOR POSTAGE AND HANDLING

ABSTRACT: THIS BOOKLET DEFINES GROUNDWATER, THE ISSUES
SURROUNDING ITS USE AND RESUSE, AND THE URGENT NEED FOR
COMPREHENSIVE MANAGEMENT. THE BOOKLET IS INTENDED FOR USE AS
A GUIDE TO GATHERING INFORMATION AND DEVELOPING A LOCAL PLAN
OF ACTION.

AVAILABILITY: CONCERN, INC., 1794 COLUMBIA ROAD, N.W.,
WASHINGTON, DC 20009

IRIS ACCESSION NUMBER: EW011348

PUBLICATION DATE: 11-12/ 8

TITLE: AREAL AND VOLUMETRIC REQUIREMENTS FOR LAND BASED
DISPOSAL SITES RECEIVING OIL FROM A MARINE SPILL.

PERSONAL AUTHOR: BAECHLER, FRED

DESCRIPTOR: *DISPOSAL SITES; *LAND USE; *OIL SPILLS;
*SPILLS; *SITE SELECTION; *WASTE DISPOSAL; *WATER POLLUTION
CONTROL

DESCRIPTIVE NOTE: 124-26P.

ABSTRACT: IT IS IMPORTANT THAT PRE-SPILL SELECTION OF LAND-
BASED DISPOSAL SITES SHOULD BE UNDERTAKEN TO PROVIDE
ADEQUATE TIME FOR SELECTION, TESTING, AND DESIGN.
SUGGESTIONS ARE PROVIDED TO DEAL WITH REQUIREMENTS THAT
SHOULD BE CONSIDERED IN THE SELECTION AND DESIGN OF LAND-
BASED DISPOSAL SITES.

AVAILABILITY: SPILL TECHNOLOGY NEWSLETTER; V8 N6

IRIS ACCESSION NUMBER: EW011349

PUBLICATION DATE: 11-12/ 8

TITLE: EVALUATION OF TRASH PUMPS FOR OIL SPILL RECOVERY.

PERSONAL AUTHOR: INCE, D. F.

DESCRIPTOR: *EQUIPMENT; *EVALUATION; *OIL SPILLS;
*PERFORMANCE EVALUATION; *PUMPS; *SPILLS; *TRASH PUMPS

DESCRIPTIVE NOTE: 127-32P.

ABSTRACT: TRASH PUMPS ARE IMPORTANT PIECES OF EQUIPMENT FOR OIL SPILL RECOVERY. REPORTED ARE THE EVALUATIONS OF FOUR PUMPS.

AVAILABILITY: SPILL TECHNOLOGY NEWSLETTER; V8 N6

IRIS ACCESSION NUMBER: EW011350

PUBLICATION DATE: JUN 84

TITLE: EPA METHOD STUDY 25. METHOD 602. PURGEABLE AROMATICS. PROJECT SUMMARY.

PERSONAL AUTHOR: WARNER, BEVERLY J.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AROMATICS;
*HYDROCARBONS; *LABORATORY PROCEDURES; *ORGANIC COMPOUNDS;
*WATER ANALYSIS; *WATER QUALITY

DESCRIPTIVE NOTE: 4P. ORDER NO.: PB84-196682; COST:
COMPLETE REPORT \$16.00

ABSTRACT: THIS PUBLICATION DESCRIBES THE EXPERIMENTAL DESIGN AND THE RESULTS OF AN INTERLABORATORY STUDY OF AN ANALYTICAL METHOD FOR DETERMINING PURGEABLE AROMATICS IN WATER. CONCLUSIONS AND RECOMMENDATIONS REGARDING EPA METHOD 602 ARE REPORTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011352

PUBLICATION DATE: AUG 84

TITLE: WATER LAW.

PERSONAL AUTHOR: GOLDFARB, WILLIAM

DESCRIPTOR: *LAW; *LAND USE; *WATER DIVERSION; *WATER
DISTRIBUTION; *WATER LAW; *WATER; *WATER RESOURCES; *WATER
TREATMENT

DESCRIPTIVE NOTE: 176P. ORDER NO.: 250-40627-6; PRICE:
\$34.95

ABSTRACT: WATER LAW OVERLAPS A NUMBER OF LEGAL FIELDS

BEYOND THE NARROW SCOPE THE TERM IMPLIES. THESE INCLUDE ENVIRONMENTAL LAW, NATURAL RESOURCES LAW, REAL PROPERTY LAW, AND TORT LAW. THIS BOOK IS DESIGNED TO PRESENT RECENT DEVELOPMENTS IN WATER LAW ON A LEVEL THAT CAN BE EASILY UNDERSTOOD, WITH A MINIMUM OF "LEGALESE." NO PRIOR KNOWLEDGE OF THE LAW OR LEGAL SYSTEM IS NECESSARY TO UNDERSTAND THE MATERIAL, AND ALL LEGAL TERMS ARE FULLY EXPLAINED IN THE TEXT. MAJOR SECTIONS INCLUDE: (1) THE LAW OF WATER DIVERSION AND DISTRIBUTION; (2) WATER RESOURCES DEVELOPMENT AND PROTECTION; (3) NONTRANSFORMATIONAL USES; (4) WATER TREATMENT AND LAND USE; AND (5) INDEX.

AVAILABILITY: BUTTERWORTH PUBLISHERS, 80 MONTVALE AVENUE, STONEHAM, MA 02180

IRIS ACCESSION NUMBER: EW011353

PUBLICATION DATE: 83

TITLE: BASIC NUMERICAL MATHEMATICS.

PERSONAL AUTHOR: MASON, J. C.

DESCRIPTOR: *BASIC; *COMPUTER APPLICATIONS; *COMPUTER
SOFTWARE; *MATHEMATICS; MATHEMATICAL APPLICATIONS; *PROBLEM
SOLVING

DESCRIPTIVE NOTE: 152P. ORDER NO.: 408-01137-8; PRICE:
\$19.95

ABSTRACT: THIS PUBLICATION IS AN AID FOR COMPUTING ON A MICROCOMPUTER IN BASIC. CONTENTS INCLUDE: (1) INTRODUCTION TO BASIC; (2) INTRODUCTION TO NUMERICAL MATHEMATICS; (3) ELEMENTARY MATHEMATICAL CALCULATIONS; (4) NON-LINEAR ALGEBRAIC EQUATIONS; (5) INTERPOLATION, DIFFERENTIATION AND INTEGRATION; (6) PROGRAMS; (7) WORKED EXAMPLES; (8) PROBLEMS; AND (9) INDEX.

AVAILABILITY: BUTTERWORTH PUBLISHERS, 80 MONTVALE AVENUE, STONEHAM, MA 02180

IRIS ACCESSION NUMBER: EW011354

PUBLICATION DATE: 84

TITLE: BASIC HYDROLOGY.

PERSONAL AUTHOR: SHARP, J. J.; SAWDEN, P. C.

DESCRIPTOR: *BASIC; *COMPUTER APPLICATIONS; *COMPUTER
SOFTWARE; *EVAPORATION; *HYDROLOGY; *PRECIPITATION;
*RESERVOIRS; *STREAMS; *SURFACE RUNOFF; WATER RESOURCES

DESCRIPTIVE NOTE: 160P. ORDER NO.: 408-01363-X; PRICE:
\$19.95

ABSTRACT: CONTENTS INCLUDE: (1) INTRODUCTION TO BASIC; (2) ELEMENTS OF HYDROLOGY; (3) PRECIPITATION; (4) EVAPORATION; (5) FREQUENCY; (6) STREAMFLOW AND SURFACE RUNOFF; (7) THE UNIT HYDROGRAPH; (8) RESERVOIR DESIGN; (9) PROGRAMS; (10)

WORKED EXAMPLES; AND (11) AN INDEX.

AVAILABILITY: BUTTERWORTH PUBLISHERS, 80 MONTVALE AVENUE,
STONEHAM, MA 02180

IRIS ACCESSION NUMBER: EW011355

PUBLICATION DATE: 83

TITLE: COMPUTATIONAL HYDRAULICS.

PERSONAL AUTHOR: BREBBIA, C. A.; FERRANTE, A. J.

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTER SOFTWARE;
FORTRAN; *HYDRAULICS; *ENGINEERING; *POSTSECONDARY
EDUCATION; *PROBLEM SOLVING

DESCRIPTIVE NOTE: 288P. ORDER NO.: 408-01153-0; PRICE:
\$49.95

ABSTRACT: NEW DEVELOPMENTS IN COMPUTATIONAL METHODS HAVE
HAD A PROFOUND EFFECT ON ALL BRANCHES OF ENGINEERING. THE
USE OF COMPUTER TECHNIQUES IN PROBLEM-SOLVING HAD PREVIOUSLY
BEEN RESERVED FOR STRUCTURAL AND STRESS PROBLEMS, RATHER
THAN THE MORE COMPLEX HYDRAULICS PROBLEMS. WITH THE ADVENT
OF NEW TECHNOLOGY MANY PROBLEMS WHICH WERE CONSIDERED
UNSUITED FOR NUMERICAL SOLUTION CAN NOW BE SOLVED WITHOUT
DIFFICULTY. THIS BOOK OFFERS AN INTRODUCTION TO THESE
COMPUTATIONAL TECHNIQUES. CLASSIC HYDRAULICS THEORY IS
COMBINED WITH NEWER FINITE AND BOUNDARY ELEMENT METHODS.
THERE IS AN INTEGRATED TREATMENT OF THEORETICAL AND
COMPUTING ASPECTS OF NUMERICAL METHODS, AS WELL AS A SERIES
OF COMPLETE COMPUTER PROGRAMS WRITTEN IN STANDARD FORTRAN.
THE PROGRAMS INCLUDE LINEAR AND NON-LINEAR PIPE NETWORK
ANALYSIS, DEPTH FLOW COMPUTATIONS, AND FINITE AND BOUNDARY
ELEMENTS FOR LAPLACE EQUATIONS.

AVAILABILITY: BUTTERWORTH PUBLISHERS, 80 MONTVALE AVENUE,
STONEHAM, MA 02180

IRIS ACCESSION NUMBER: EW011356

PUBLICATION DATE: JUL-AU 84

TITLE: RECENT ADVANCES IN COLIFORM METHODOLOGY FOR WATER
ANALYSIS.

PERSONAL AUTHOR: LECHEVALLIER, MARK W.; MCFETERS, GORDON A.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BACTERIA; *COLIFORMS;
*LABORATORY PROCEDURES; *OPERATIONS (WATER); *OPERATIONS
(WASTEWATER); *SAMPLING; *WATER TREATMENT; *WASTEWATER
TREATMENT

DESCRIPTIVE NOTE: 5-9P.

ABSTRACT: METHODS PRESENTED IN THIS ARTICLE ARE NEW AND NOT
LISTED IN THE 15TH EDITION OF STANDARD METHODS FOR THE
EXAMINATION OF WATER AND WASTEWATER. SOME CHANGES HAVE BEEN
MADE IN THE 16TH EDITION AND THESE ARE NOTED.

AVAILABILITY: JOURNAL OF ENVIRONMENTAL HEALTH; V47 N1

IRIS ACCESSION NUMBER: EW011357

PUBLICATION DATE: JUL 84

TITLE: PROCESS CONTROL FUNDAMENTALS.

DESCRIPTOR: *FLOW MEASUREMENT; *MANAGEMENT; *OPERATIONS
(WASTEWATER); *PROCESS CONTROLS; *PERFORMANCE EVALUATION;
*SAMPLING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 8-9P.

ABSTRACT: DESCRIBED ARE SOME OF THE FUNDAMENTALS OF PROCESS
CONTROL OF WASTEWATER TREATMENT. AN OPERATOR NEEDS TO KNOW
HOW TO MAINTAIN THE PRODUCTION OF A HIGH QUALITY EFFLUENT.
OPERATIONS NEED TO BE EVALUATED AND ADJUSTED TO OBTAIN
OPTIMUM PERFORMANCE.

AVAILABILITY: OPERATIONS FORUM; V1 N1

IRIS ACCESSION NUMBER: EW011358

PUBLICATION DATE: JUL 84

TITLE: ACTIVATED SLUDGE PROCESS AND TROUBLESHOOTING.

PERSONAL AUTHOR: HILL, WILLIAM R.

DESCRIPTOR: *ACTIVATED SLUDGE PROCESS; *OPERATIONS
(WASTEWATER); *PROCESS CONTROLS; *PERFORMANCE EVALUATION;
*TROUBLESHOOTING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 10-12,14-15,18P.

ABSTRACT: DESCRIBED IS THE ACTIVATED SLUDGE PROCESS AND
STEPS FOR TROUBLESHOOTING OPERATIONS.

AVAILABILITY: OPERATIONS FORUM; V1 N1

IRIS ACCESSION NUMBER: EW011361

PUBLICATION DATE: JUL 84

TITLE: OXIDATION DITCH SOFTWARE.

PERSONAL AUTHOR: MCINTYRE, DREW

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTER SOFTWARE;
*MANAGEMENT; *MONITORING; *OPERATIONS (WASTEWATER);
*PERFORMANCE EVALUATION; *OXIDATION DITCHES; *RADIO SHACK;
*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 20-21P.

ABSTRACT: DESCRIBED IS AN OPERATOR'S PROGRAM FOR
MICROCOMPUTER PROCESS CONTROL. THE PROGRAM IS CALLED 'SOFT

OP.* PROCEDURES FOR OBTAINING A COPY OF THE PROGRAM ARE INCLUDED.

AVAILABILITY: OPERATIONS FORUM; V1 N1

IRIS ACCESSION NUMBER: EW011362

PUBLICATION DATE: JUL 84

TITLE: THE BEST MIDWESTERN PLANTS.

DESCRIPTOR: *AWARDS; *ILLINOIS; *INDIANA; *MANAGEMENT;
*MICHIGAN; *MINNESOTA; *OHIO; *OPERATIONS (WASTEWATER);
*PERFORMANCE EVALUATION; *WASTEWATER TREATMENT; *WISCONSIN

DESCRIPTIVE NOTE: 25-26P.

ABSTRACT: DESCRIBED ARE SEVERAL MIDWESTERN WASTEWATER TREATMENT FACILITIES THAT WERE HONORED BY USEPA. PLANTS ARE INCLUDED FROM MICHIGAN, MINNESOTA, INDIANA, OHIO, ILLINOIS, AND WISCONSIN.

AVAILABILITY: OPERATIONS FORUM; V1 N1

IRIS ACCESSION NUMBER: EW011364

PUBLICATION DATE: JUN 84

TITLE: MICROBIOLOGY OF GROUNDWATER. 1978-MAY. 1984
(CITATIONS FROM THE LIFE SCIENCES COLLECTION DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *ANALYTICAL
TECHNIQUES; BIBLIOGRAPHIES; *GROUNDWATER; *MICROBIOLOGY;
*MICROORGANISMS; *RESEARCH; *WATER QUALITY

DESCRIPTIVE NOTE: 52P. PRICE CODE: PC N01/MF N01; ORDER
NO.: PB84-867357

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE OCCURRENCE, DISTRIBUTION, ACTIVITY, AND MOVEMENT OF GROUNDWATER MICROORGANISMS. DETECTION OF MICROORGANISMS AND THEIR EFFECTS UPON GROUNDWATER QUALITY ARE ALSO CONSIDERED. (CONTAINS 53 CITATIONS FULLY INDEXED AND INCLUDING A TITLE LIST.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011365

PUBLICATION DATE: DEC 83

TITLE: URBAN HIGHWAY STORM DRAINAGE MODEL. VOLUME 3.
INLET DESIGN PROGRAM. USER'S MANUAL AND DOCUMENTATION.

PERSONAL AUTHOR: DEVER, R. J.; AND OTHERS

DESCRIPTOR: *COMPUTER APPLICATIONS; *COMPUTER SOFTWARE;

*DOCUMENTATION MANUALS; *DRAINAGE; *HIGHWAYS; *HYDRAULICS;
*STORMWATER; *SURFACE RUNOFF; *URBAN AREAS; *USER MANUALS;
*WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 151P. PRICE CODE: PC A08/MF A01; ORDER
NO.: PB84-189794

ABSTRACT: THIS REPORT CONSISTS OF THE DOCUMENTATION AND USER'S MANUAL FOR THE INLET DESIGN PROGRAM OF THE HYDRAULICS/QUALITY MODULE. USER-SPECIFIED DESIGN CRITERIA ARE USED BY THE PROGRAM TO DETERMINE THE LOCATION OF FIXED-SIZED INLETS IN THE SURFACE RUNOFF CONVEYANCE SYSTEM.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011366

PUBLICATION DATE: MAY 84

TITLE: UPGRADING FOUNDRY WASTEWATER TREATMENT.

PERSONAL AUTHOR: OSTANTOWSKI, R.; RUPPERSBERGER, J. S.

DESCRIPTOR: *COSTS; *FOUNDRIES; *INDUSTRY; *INDUSTRIAL
WASTES; *IRON; *RESEARCH; *PILOT STUDIES; *WASTEWATER
TREATMENT

DESCRIPTIVE NOTE: 20P. PRICE CODE: PC A02/MF A01; ORDER
NO.: PB84-195320

ABSTRACT: THE PAPER SUMMARIZES FINDINGS OF A 10-WEEK PILOT PLANT STUDY OF GRAY IRON FOUNDRY WASTEWATER TREATMENT. TREATMENT TECHNOLOGIES STUDIED INCLUDED LIME SOFTENING, LIME/SODA ASH SOFTENING, POLYMER ADDITION, FLOCCULATION/SEDIMENTATION, AND DUAL MEDIA FILTRATION. RESULTS INDICATE THAT CLARIFICATION WITH LIME AND POLYMER, FOLLOWED BY DUAL MEDIA FILTRATION, PROVIDES EFFECTIVE TREATMENT FOR DISCHARGE OR POTENTIAL REUSE. FULL SCALE COSTS AND SPACE REQUIREMENTS ARE INCLUDED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011367

PUBLICATION DATE: 83

TITLE: HOW TO DESIGN SEWAGE SLUDGE PUMPING SYSTEMS.

PERSONAL AUTHOR: FROST, R. C.

DESCRIPTOR: *DESIGN; *FACILITIES; *EQUIPMENT;
*INSTRUCTIONAL MATERIALS; *POSTSECONDARY EDUCATION; *PUMPS;
*PUMPING SYSTEMS; *SEWAGE; *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 90P. PRICE CODE: PC E08/MF E08. ORDER
NO.: PB84-201755

ABSTRACT: THE DESIGN OF SEWAGE SLUDGE PUMPING SYSTEMS HAS,

OVER THE YEARS, BEEN LARGELY EMPIRICAL. THIS MANUAL PROVIDES A SCIENTIFIC BASIS FOR DESIGNS, AND GUIDANCE IS GIVEN ON: ESTIMATION OF FRICTION-HEAD LOSSES THROUGH PIPEWORK AND OPEN CHANNELS; ESTIMATION AND MEASUREMENT OF SLUDGE VISCOSITY; PUMP SELECTION AND PERFORMANCE; SYSTEM DESIGN, I.E. INTEGRATION OF INDIVIDUAL COMPONENTS OF A DESIGN INTO A WHOLE.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011368

PUBLICATION DATE: JUN 84

TITLE: MICROBIOLOGY OF GROUNDWATER. 1977-MAY, 1984 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *ENVIRONMENTAL EFFECTS; *GROUNDWATER; *MICROBIOLOGY; *RESEARCH; *WATER TREATMENT; *WATER RESOURCES

DESCRIPTIVE NOTE: 120P. PRICE CODE: PC N01/MF N01; ORDER NO.: PB84-867363

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE ENUMERATION, CHARACTERIZATION, MOVEMENT, AND MONITORING OF MICROORGANISMS IN POTABLE AND NON POTABLE GROUNDWATER FROM A WIDE VARIETY OF NATURAL AND ANTHROPOGENIC SOURCES. CONSIDERABLE ATTENTION IS GIVEN TO THE EFFECTS, TREATMENT, AND REMOVAL OF VARIOUS MICROORGANISMS CONTAINED IN GROUNDWATER. (CONTAINS 105 CITATIONS FULLY INDEXED AND INCLUDING A TITLE LIST.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011369

TITLE: DRIVER'S POCKET GUIDE TO HAZARDOUS MATERIALS.

DESCRIPTOR: *GUIDES; *HAZARDOUS MATERIALS; *LAWS; *SHIPPING; *TRANSPORTATION

DESCRIPTIVE NOTE: 271P. PRICE: \$2.25

ABSTRACT: THIS GUIDE PROVIDES INFORMATION COVERING APPLICABLE LAWS, SHIPPING HAZARDOUS MATERIALS, LOADING AND UNLOADING, EQUIPMENT, DRIVING, SHIPPING SPECIFIC MATERIALS, TABLE OF HAZARDOUS MATERIALS, DRIVING AND PARKING RULES, EMERGENCY PHONE NUMBERS, PLACARDING CHART, AND MISCELLANEOUS RELATED ITEMS.

AVAILABILITY: J. J. KELLER AND ASSOCIATES, INC., 145 W. WISCONSIN AVENUE, P.O. BOX 368, NEENAH, WI 54956

IRIS ACCESSION NUMBER: EW011370

TITLE: CONSTRUCTION PROJECT ADMINISTRATION.

PERSONAL AUTHOR: FISK, EDWARD R.

DESCRIPTOR: *ADMINISTRATION; *CONSTRUCTION; *COSTS; *INSPECTION; *PROJECT ADMINISTRATION; *RECORDS; *REPORTS; *SAFETY; *SCHEDULING

DESCRIPTIVE NOTE: 434P. PRICE: \$24.95

ABSTRACT: TWENTY CHAPTERS COVER THIS TOPIC IN GREAT DETAIL - FROM THE INSPECTOR'S RESPONSIBILITY TO RECORDS AND REPORTS, SAFETY, SCHEDULING, PAYMENT, CONTROL, CLAIMS, AND NUMEROUS OTHER AREAS. THE TEXT CONTAINS MANY USEFUL CHARTS, TABLES, DIAGRAMS, GRAPHS, PHOTOGRAPHS, AND SAMPLE FORMS.

AVAILABILITY: JOHN WILEY AND SONS, ONE WILEY DRIVE, SOMERSET, NJ 08873

IRIS ACCESSION NUMBER: EW011371

PUBLICATION DATE: JUN 84

TITLE: EPA METHOD STUDY 12, CYANIDE IN WATER. PROJECT SUMMARY.

PERSONAL AUTHOR: BRITTON, PAUL; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *CYANIDES; *EPA METHOD STUDY; *LABORATORY PROCEDURES; *RESEARCH REPORTS; *WATER ANALYSIS; *WATER QUALITY

DESCRIPTIVE NOTE: 4P. FOR COMPLETE REPORT: PB84-196674; PRICE: \$13.00

ABSTRACT: THIS REPORT DETAILS THE RESULTS OF A STUDY FOR THE PARAMETERS OF TOTAL CYANIDE AND CYANIDES AMENABLE TO CHLORINATION WHICH ARE PRESENT IN WATER AT MICROGRAM PER LITER LEVELS. FOUR METHODS WERE STUDIED. RESULTS OF THE STUDY AND CONCLUSIONS ARE REPORTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011372

TITLE: WATER SUPPLY AND SANITATION PROJECT PREPARATION HANDBOOK. VOLUME 1, GUIDELINES; VOLUMES 2 AND 3, CASE STUDIES.

PERSONAL AUTHOR: GROVER, BRIAN; AND OTHERS

DESCRIPTOR: *CASE STUDIES; *DEVELOPING COUNTRIES; *HANDBOOKS; *GUIDELINES; *PLANNING; *PROJECT DEVELOPMENT; *PROJECT PLANNING; *SANITATION; *WATER SUPPLY

ABSTRACT: THIS HANDBOOK CONSISTS OF ONE VOLUME OF GUIDELINES AND TWO VOLUMES OF ILLUSTRATIVE CASE STUDIES. IT

IS INTENDED TO ASSIST THOSE IN DEVELOPING COUNTRIES WHO ARE RESPONSIBLE FOR PREPARING PROJECTS DURING THE INTERNATIONAL DRINKING WATER SUPPLY AND SANITATION DECADE OF THE 1980S AND BEYOND. INCLUDING THOSE PROPOSED FOR FINANCING BY BILATERAL AND MULTILATERAL AID AGENCIES. WRITERS PROJECT THREE LEVELS OF PROJECT PREPARATION TO SATISFY THE INFORMATION NEEDS OF DIFFERENT AGENCIES FOR PROJECTS OF VARIABLE COMPLEXITIES. PROJECT IDENTIFICATION PROVIDES MINIMAL INFORMATION, SUFFICIENT TO DETERMINE HOW A PROJECT FITS INTO A DEVELOPMENT OR ASSISTANCE PROGRAMME AND HOW TO ATTRACT FINANCIAL SUPPORT. THE PREFEASIBILITY STAGE PROVIDES INFORMATION ON SELECTING PREFERRED ALTERNATIVES AND MAY SUFFICE FOR INVESTMENT DECISIONS ABOUT RELATIVELY SIMPLE PROJECTS. THE FEASIBILITY STAGE, FINALLY, PROVIDES THE FULL JUSTIFICATION NECESSARY FOR COMPLEX AND LARGE PROJECTS. REPORTS FOR THE VARIOUS STAGES OF PROJECT PREPARATION ARE ILLUSTRATED BY MEANS OF CASE STUDIES IN VOLUMES 2 AND 3 OF THE HANDBOOK.

AVAILABILITY: WORLD BANK, PUBLICATIONS DEPARTMENT, WASHINGTON, DC, USA

IRIS ACCESSION NUMBER: EW011374

PUBLICATION DATE: AUG 84

TITLE: STATISTICS IN THE ENVIRONMENTAL SCIENCES.

PERSONAL AUTHOR: CERTZ, S. M., ED.; LONDON, M. D., ED.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *BIOLOGY; *ENVIRONMENTAL SCIENCES; *ENVIRONMENTAL DATA; *INSTRUCTIONAL MATERIALS; *LABORATORY QUALITY; *MATHEMATICAL APPLICATIONS; *RESEARCH DESIGN; *RISK ASSESSMENT; *STATISTICS; *SURVEYS

DESCRIPTIVE NOTE: 115P. PRICE: MEMBER \$19.20; NON-MEMBER \$24.00; ORDER NUMBER PCN: 04-845000-16

ABSTRACT: THIS PUBLICATION PRESENTS A CONCEPTUAL AND PRAGMATIC APPROACH CONCERNING THE USE OF STATISTICAL AND MATHEMATICAL TECHNIQUES TO ANALYZE AND INTERPRET ENVIRONMENTAL DATA. EMPHASIS IS GIVEN TO THE TYPES OF ANALYSES AVAILABLE, THEIR USEFULNESS UNDER A VARIETY OF CONDITIONS, AND THE DECISION-MAKING PROCESS AN INVESTIGATOR MUST GO THROUGH PRIOR TO APPLYING THE TECHNIQUES.

AVAILABILITY: ASTM, 1916 RACE STREET, PHILADELPHIA, PA 19403, ATTN: CUSTOMER SERVICE DEPARTMENT.

IRIS ACCESSION NUMBER: EW011375

PUBLICATION DATE: JUL 82

TITLE: ENVIRONMENTAL ASSESSMENT OF MARINE DISPOSAL OPTIONS FOR WASTE MANAGEMENT SYSTEMS: PROGRAM DEVELOPMENT PLAN.

DESCRIPTOR: *COASTAL WATERS; *ECOLOGY; *ENVIRONMENT; *ENVIRONMENTAL INFLUENCES; *OCEANOLOGY; *PROGRAM DEVELOPMENT PLANS; *WASTE DISCHARGES; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 36P. PRICE CODE: PC A03/MF A01; ORDER NO.: PB83-116020

ABSTRACT: DISCHARGE INTO COASTAL WATERS OF THE UNITED STATES IS ONCE AGAIN RECEIVING INCREASING CONSIDERATION AS AN ACCEPTABLE DISPOSAL OPTION FOR MUNICIPAL WASTES (SEWAGE SLUDGES AND EFFLUENTS). SUCH DISPOSAL POSES RISK TO MARINE/AQUATIC RESOURCES AND ENVIRONMENTAL AMENITIES WHICH ARE OF BROAD VALUE TO THE NATION. THE POTENTIAL SCALE OF WASTE DISPOSAL REQUIRES COMPREHENSIVE AND OBJECTIVE EVALUATION, AT THE FEDERAL LEVEL, OF ALL REASONABLE ALTERNATIVES, INCLUDING LAND-BASED, OCEAN, AND ATMOSPHERIC DISPOSAL STRATEGIES IN TERMS OF OVERALL ECONOMIC COSTS AND RISK TO THE ENVIRONMENT AND TO PUBLIC HEALTH. SUCH A COMPREHENSIVE ANALYSIS IS REQUIRED SO THAT THE NATION CAN IDENTIFY AND SELECT POLICIES AND PRACTICES THAT WILL MINIMIZE THE TOTAL COSTS (ECONOMIC, ENVIRONMENTAL, AND HEALTH) OF MUNICIPAL WASTE DISPOSAL. UNDER THIS PROGRAM, NOAA WILL UNDERTAKE THE INTEGRATED ENVIRONMENTAL ASSESSMENT OF MARINE/AQUATIC DISPOSAL OPTIONS. THE PROPOSED PROGRAM WILL COMPLEMENT AND EXTEND EXISTING MARINE ENVIRONMENTAL RESEARCH PROGRAMS TO PROVIDE FOR MORE EFFECTIVE APPLICATION OF INFORMATION TO MARINE WASTE DISPOSAL MANAGEMENT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011376

PUBLICATION DATE: 82

TITLE: AN OVERVIEW OF CURRENT SPILL CLEANUP TECHNOLOGY.

PERSONAL AUTHOR: GRIFFITHS, RICHARD A.

DESCRIPTOR: *CLEANUP; *EQUIPMENT; OIL; *SPILLS; *TECHNOLOGY

DESCRIPTIVE NOTE: 16P. PRICE CODE: PC A02/MF A01; ORDER NO.: PB83-116939

ABSTRACT: A REVIEW OF THE EQUIPMENT AND TECHNIQUES FOR RESPONDING TO SPILLS OF DANGEROUS CARGOES IS PRESENTED IN THE REPORT. CATEGORIZING SPILLED PRODUCTS AS FLOATERS, SINKERS, MIXERS, OR VAPORS PROVIDES A CONVENIENT VIEWPOINT FOR DISCUSSING RESPONSE TECHNOLOGY, WHICH DEPENDS STRONGLY ON WHICH BEHAVIOR THE PRODUCT EXHIBITS. SPILLS OF RADIOACTIVE AND BACTERIOLOGICAL AGENTS ARE NOT COVERED IN THIS PAPER, THOUGH THE POTENTIAL USE OF BACTERIA FOR MITIGATING OIL OR CHEMICAL SPILLS IS NOTED. THE TECHNOLOGIES FOR RESPONDING TO SPILLS OF FLOATERS AND SINKERS ARE SHOWN TO BE THE MOST WELL DEVELOPED OF THE FOUR TYPES. EQUIPMENT AND TECHNIQUES IN COMMON USE BY THE UNITED STATES AND CANADIAN GOVERNMENTS ARE DISCUSSED TO ILLUSTRATE THIS. CURRENT TECHNOLOGY INCLUDES BOTH REMOVAL OF THE POLLUTANT USING NON-CONVENTIONAL EQUIPMENT SUCH AS BOOMS, SKIMMERS, DREDGES, OR SORBENTS AND IN-PLACE TREATMENT SUCH AS CHEMICALLY-ENHANCED DISPERSION, ENHANCED MICROBIOLOGICAL DEGRADATION, OR IN-PLACE BURNING.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011377

PUBLICATION DATE: JUL 82

TITLE: WATER POLLUTION CONTROL TECHNOLOGY IN THE USA.

PERSONAL AUTHOR: BUNCH, ROBERT L.

DESCRIPTOR: *ENVIRONMENT; *EUTROPHICATION; *LEGISLATION;
*SLUDGE DISPOSAL; *TECHNOLOGY; *TOXIC SUBSTANCES;
*WASTEWATER TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 149-50P. PRICE CODE: PC A02/MF A01;
ORDER NO.: PB83-117051

ABSTRACT: A HISTORICAL PERSPECTIVE OF THE NEED FOR, AND THE DEVELOPMENT OF TECHNOLOGY, FOR WASTEWATER TREATMENT IS PRESENTED. LEGISLATIVE ACTIVITY FOR ENVIRONMENTAL ENHANCEMENT CLOSELY FOLLOWED PUBLIC INTEREST. CURRENTLY, MAJOR CONCERNS IN WASTEWATER TECHNOLOGY ARE SLUDGE DISPOSAL, CONTROL OF TOXIC SUBSTANCES, AND PREVENTION OF EUTROPHICATION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011378

PUBLICATION DATE: SEP 82

TITLE: PLANNING GUIDE FOR EVALUATING AGRICULTURAL NONPOINT
SOURCE WATER QUALITY CONTROLS.

PERSONAL AUTHOR: ROBILLARD, PAUL D.; AND OTHERS

DESCRIPTOR: *AGRICULTURE; *EVALUATION; *GUIDES; *NONPOINT
SOURCE POLLUTION; *PLANNING; *WATER QUALITY; *WATER
POLLUTION CONTROL

DESCRIPTIVE NOTE: 744P. PRICE CODE: PC A99/MF A01; ORDER
NO.: PB83-119453

ABSTRACT: THIS MANUAL IS A GUIDE FOR WATER QUALITY PLANNERS IN THE EVALUATION AND SELECTION OF AGRICULTURAL NONPOINT SOURCE CONTROLS FOR AREAS RANGING IN SIZE FROM INDIVIDUAL FARMS AND SUBWATERSHEDS TO LARGE REGIONS. SUCH CONTROLS ARE SPECIFIED IN WATER QUALITY PLANS DEVELOPED IN RESPONSE TO SECTION 208 OF THE 1972 FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS. CONTROL PRACTICES ARE DESCRIBED FOR BOTH IRRIGATED AND NONIRRIGATED CROPLAND. THE PHYSICAL AND CHEMICAL NATURE OF NONPOINT SOURCE POLLUTANTS AND THE PATHWAYS BY WHICH THESE POLLUTANTS ARE TRANSPORTED FROM FIELD TO WATER BODY ARE EXAMINED. POLLUTANTS DISCUSSED INCLUDE NUTRIENTS, SEDIMENT, ANIMAL WASTES, SALTS AND PESTICIDES. CONTROLS INVOLVE TILLAGE METHODS, CROPPING PRACTICES, AND METHODS OF PESTICIDE AND FERTILIZER APPLICATION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011379

PUBLICATION DATE: MAY 82

TITLE: USER'S MANUAL FOR THE INSTREAM SEDIMENT-CONTAMINANT
TRANSPORT MODEL SERATRA.

PERSONAL AUTHOR: ONISHI, Y.; WISE, S. E.

DESCRIPTOR: *CONTAMINANT TRANSPORT; *MANUALS; *MODELS;
*SEDIMENT TRANSPORT; *SERATRA; *STREAMS; *USER MANUALS;
*WATER

DESCRIPTIVE NOTE: 195P. ORDER NO.: PB83-122739; PRICE
CODE: PC A09/MF A01

ABSTRACT: THIS MANUAL GUIDES THE USER IN APPLYING THE SEDIMENT-CONTAMINANT TRANSPORT MODEL SERATRA. SERATRA IS AN UNSTEADY, TWO-DIMENSIONAL CODE THAT USES THE FINITE ELEMENT COMPUTATION METHOD WITH THE GALERKIN WEIGHTED RESIDUAL TECHNIQUE. THE MODEL HAS GENERAL CONVECTION-DIFFUSION EQUATIONS WITH DECAY AND SINK/SOURCE TERMS WITH APPROPRIATE BOUNDARY CONDITIONS. A SEDIMENT TRANSPORT MODEL, A DISSOLVED CONTAMINANT TRANSPORT SUBMODEL, AND A PARTICULATE CONTAMINANT TRANSPORT SUBMODEL ARE COUPLED TO INCLUDE THE EFFECTS OF SEDIMENT-CONTAMINANT INTERACTION. SERATRA IS AN INTEGRAL PART OF THE CHEMICAL MIGRATION AND RISK ASSESSMENT METHODOLOGY, WHICH PREDICTS OVERLAND AND INSTREAM PESTICIDE MIGRATION AND FATE TO ASSESS THE POTENTIAL SHORT- AND LONG-TERM IMPACTS ON AQUATIC BIOTA IN RECEIVING STREAMS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011380

PUBLICATION DATE: JUN 75

TITLE: REVIEW OF LANDSPREADING OF LIQUID MUNICIPAL SEWAGE
SLUDGE.

PERSONAL AUTHOR: CARROLL, THOMAS E.; AND OTHERS

DESCRIPTOR: *ATTITUDES; *LAND USE; *LAND APPLICATION;
*LANDSPREADING; *RECOMMENDATIONS; *PUBLIC HEALTH;
*OPERATIONS (WASTEWATER); *RESEARCH; *SLUDGE; *SURVEYS;
*WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 112P. PRICE: \$7.72

ABSTRACT: THE OBJECTIVE OF THIS STUDY WAS TO REVIEW AND SUMMARIZE EXISTING INFORMATION REGARDING LANDSPREADING OF MUNICIPAL SEWAGE SLUDGE. AN EXTENSIVE LITERATURE REVIEW WAS CONDUCTED AND AN ANNOTATED BIBLIOGRAPHY IS AVAILABLE AS A SEPARATE REPORT FROM NTIS. A SURVEY WAS CONDUCTED IN FEDERAL REGIONS 2, 3, 4, 5, AND 9. SELECTED FACILITIES WERE VISITED. RESULTS OF THE SURVEY ARE REPORTED.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200
CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW011381

PUBLICATION DATE: APR 76

TITLE: SECONDARY TREATMENT OF MUNICIPAL OCEAN DISCHARGES.
TASK FORCE REPORT.

DESCRIPTOR: *COMMITTEE REPORTS; *OCEANOLOGY; *OCEAN
DISCHARGE; *POLICIES; *REGULATIONS; *RECOMMENDATIONS;
*SECONDARY TREATMENT; *USEPA; *WASTEWATER TREATMENT; *WATER
POLLUTION CONTROL

DESCRIPTIVE NOTE: 242P. PRICE: \$15.52

ABSTRACT: THIS STUDY WAS CONDUCTED TO DETERMINE THE NEED
FOR SECONDARY TREATMENT OF WASTEWATER DISCHARGED TO THE
OCEAN FROM PUBLICLY-OWNED TREATMENT WORKS AND TO MAKE
RECOMMENDATIONS ON "WHETHER TO PROPOSE TO CONGRESS ANY
EXCEPTIONS TO THE SECONDARY TREATMENT STANDARDS." THE TASK
FORCE CONCLUDED THAT POLLUTANTS OF GENERAL CONCERN IN ALL
OCEAN WATERS ARE TOXIC AND PERSISTENT METALS AND ORGANICS,
SETTLABLE SOLIDS, FLOATABLE SOLIDS AND PATHOGENS. THE TASK
FORCE DETERMINED THAT PRIMARY TREATMENT ALONE WOULD NOT BE
SUFFICIENT FOR MOST OPEN OCEAN DISCHARGES. RECOMMENDED
PROCEDURES TO BE FOLLOWED ARE REPORTED.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200
CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW011382

PUBLICATION DATE: JUN 76

TITLE: OVERLAND FLOW TREATMENT OF RAW WASTEWATER WITH
ENHANCED PHOSPHORUS REMOVAL.

PERSONAL AUTHOR: THOMAS, R. E.; AND OTHERS

DESCRIPTOR: *LAND USE; *OVERLAND FLOW; *OPERATIONS
(WASTEWATER); *PERFORMANCE EVALUATION; *RESEARCH;
*WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 43P. PRICE: \$3.58

ABSTRACT: A 36-MONTH STUDY WAS CONDUCTED TO EVALUATE THE
CAPABILITY OF OVERLAND FLOW TO PROVIDE COMPLETE TREATMENT OF
RAW COMMUNUTED WASTEWATER ON A YEAR-ROUND BASIS IN MILD
CLIMATES. THIS SECOND REPORT IN A SERIES COVERS 36 MONTHS OF
PERFORMANCE AT A LOADING OF 10CM/WEEK AND A SPECIAL 15-MONTH
ADJUNCT ON PHOSPHORUS REMOVAL BY CHEMICAL PRECIPITATION
WITHIN ALUMINUM SULFATE. DATA COLLECTED SHOW OVERLAND FLOW
TO BE A SIMPLE AND RELIABLE TREATMENT PROCESS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200
CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW011383

PUBLICATION DATE: MAR 79

TITLE: APPLICATION OF SLUDGES AND WASTEWATERS ON
AGRICULTURAL LAND: A PLANNING AND EDUCATIONAL GUIDE.

PERSONAL AUTHOR: KNEZEK, BERNARD D., ED.; MILLER, ROBERT
H., ED.

DESCRIPTOR: *AGRICULTURE; *GUIDES; *LAND APPLICATION; *LAND
USE; *MONITORING; *OPERATIONS (WASTEWATER); *PLANNING;
*SLUDGE; *WASTEWATERS

DESCRIPTIVE NOTE: 102P. PRICE: \$7.12

ABSTRACT: THIS REPORT ADDRESSES THE APPLICATION OF
AGRICULTURAL PROCESSING WASTES, INDUSTRIAL AND MUNICIPAL
WASTES ON AGRICULTURAL LAND AS BOTH A WASTE MANAGEMENT AND
RESOURCE RECOVERY AND REUSE PRACTICE. THE DOCUMENT
EMPHASIZES THE "TREATMENT" AND BENEFICIAL USE OF SLUDGE AND
WASTEWATER AS OPPOSED TO WASTE DISPOSAL. SAMPLE PROBLEMS,
PROCEDURES, CALCULATIONS AND DIAGRAMS ARE INCORPORATED INTO
MOST SECTIONS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200
CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW011384

PUBLICATION DATE: MAR 83

TITLE: GROUND-WATER MONITORING GUIDANCE FOR OWNERS AND
OPERATORS OF INTERIM STATUS FACILITIES. REVISION.

DESCRIPTOR: *COMPLIANCE; *GROUNDWATER; *HAZARDOUS WASTES;
*MANUALS; *MONITORING; *LAND DISPOSAL; *REGULATIONS;
*REPORTING; *WASTE DISPOSAL; *WATER QUALITY

DESCRIPTIVE NOTE: 190P. PRICE CODE: PC A09/MF A01; ORDER
NO.: DE84900827

ABSTRACT: THIS MANUAL PROVIDES GUIDANCE FOR OWNERS AND
OPERATORS OF HAZARDOUS WASTE LAND DISPOSAL FACILITIES IN
COMPLYING WITH THE INTERIM STATUS REQUIREMENTS FOR GROUND-
WATER QUALITY MONITORING IN SUBPART F OF 40 CFR 265. (45
FED. REG. 33239 ET SEQ., MAY 19, 1980). THESE REGULATIONS
REQUIRE OWNERS AND OPERATORS TO DESIGN AND IMPLEMENT EITHER
A DETECTION PROGRAM AT FACILITIES NOT KNOWN OR ASSUMED TO BE
SIGNIFICANTLY AFFECTING GROUND-WATER QUALITY OR AN
ASSESSMENT PROGRAM FOR QUANTIFYING THE GROUND WATER QUALITY
EFFECTS WHICH HAVE OCCURRED. OWNERS OR OPERATORS WHO ASSUMED
THAT GROUND WATER HAS BEEN AFFECTED BY THE FACILITY WERE
PROVIDED AN OPPORTUNITY TO WAIVE THE DETECTION PROGRAM. IN
THIS CASE, THEY MAY ENTER DIRECTLY INTO THE ASSESSMENT
PROGRAM, QUANTIFYING THE EXTENT OF CONTAMINATION AND THE
RATE OF MIGRATION. THIS MANUAL DISCUSSES THE OBJECTIVES OF
THE PROGRAMS, THE REGULATORY LANGUAGE AND THE AGENCY'S
ASSOCIATED INTENT, AND REQUIRED MONITORING SYSTEMS, ANALYSES
AND REPORTING. THE GUIDANCE IN THIS MANUAL IS APPLICABLE TO
EPA-ADMINISTERED PROGRAMS. (EPA CITATION 09:020819).

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011385

PUBLICATION DATE: NOV 81

TITLE: WATER HANDBOOK FOR METAL MINING OPERATIONS.

PERSONAL AUTHOR: WILDEMAN, T. R.

DESCRIPTOR: *HANDBOOKS; *INDUSTRY; *MINING; *METALS; *MINE
DRAINAGE; *OPERATIONS (WATER); *POLLUTION CONTROL; *WATER
POLLUTION CONTROL; *WATER TREATMENT; *EFFLUENTS

DESCRIPTIVE NOTE: 99P. PRICE CODE: PC A05/MF A01; ORDER
NO.: PB84-159755

ABSTRACT: THIS IS A HANDBOOK THAT OPERATORS OF METAL MINES
CAN USE TO UNDERSTAND HOW THE VARIOUS SUBSTANCES ORIGINATE
IN MINE WATER AND WHAT CAN BE DONE TO ELIMINATE OR CONTROL
THEIR OCCURRENCE. THE INTRODUCTORY CHAPTERS REVIEW THE
CHEMICAL WEATHERING REACTIONS OF ROCK FORMING AND ORE
MINERALS, AND THE ENVIRONMENTAL STANDARDS THAT APPLY TO
DRINKING WATER AND MINING AND MILLING EFFLUENTS. THEN THERE
IS A DISCUSSION HOW VARIOUS PHYSICAL FACTORS SUCH AS ORE
PETROLOGY, GROUND WATER HYDROLOGY, AND TYPE OF ORE
OCCURRENCE CAN AFFECT THE QUALITY OF MINE DRAINAGES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011386

PUBLICATION DATE: JUN 83

TITLE: TURBIDITY REMOVAL FOR SMALL PUBLIC WATER SYSTEMS.

DESCRIPTOR: *COSTS; *EQUIPMENT; *OPERATIONS (WATER);
*TURBIDITY; *UTILITIES; *WATER TREATMENT

DESCRIPTIVE NOTE: 133P. PRICE CODE: PC A07/MF A01; ORDER
NO.: PB84-194653

ABSTRACT: THIS DOCUMENT HAS BEEN PREPARED TO AID WATER
UTILITY OWNERS, ENGINEERS, MANAGERS AND OPERATORS IN
UNDERSTANDING AND DEALING WITH EXCESS TURBIDITY LEVELS IN
THE WATER SUPPLY. IT IS INTENDED TO BE USED FOR DEFINING THE
PROBLEM, DEVELOPING AND EVALUATING PROPOSED SOLUTIONS,
EXPLAINING TO UTILITY CUSTOMERS THE NEED FOR TURBIDITY
CONTROL, AND UNDERSTANDING OPERATIONAL CONSIDERATIONS.
FINALLY, IT EXPLAINS A METHOD TO ESTIMATE THE COSTS
ASSOCIATED WITH INSTALLATION AND OPERATION OF TURBIDITY
REMOVAL SYSTEMS. THIS DOCUMENT CONTAINS NO REGULATORY POLICY
AND DOES NOT OBLIGATE SYSTEMS TO USE ANY TREATMENT OR
NONTREATMENT TECHNIQUE TO REDUCE TURBIDITY CONCENTRATIONS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5235
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011387

PUBLICATION DATE: JUN 83

TITLE: MICROORGANISM REMOVAL FOR SMALL WATER SYSTEMS.

DESCRIPTOR: *COSTS; *DESIGN; *MICROORGANISMS; *OPERATIONS
(WATER); *UTILITIES; *WATER TREATMENT

DESCRIPTIVE NOTE: 170P. PRICE CODE: PC A08/MF A01; ORDER
NO.: PB84-194711

ABSTRACT: THIS DOCUMENT IS DESIGNED PRIMARILY FOR USE BY
OWNERS AND OPERATORS OF SMALL WATER SYSTEMS, THOSE PRODUCING
500000 GALLONS PER DAY OR LESS AND SERVING LESS THAN 5000
PERSONS. OTHER EXPECTED USERS ARE MUNICIPAL MANAGERS AND
CONSULTING ENGINEERS RETAINED BY UTILITIES. ITS PRIMARY
PURPOSE IS TO ASSIST PERSONNEL OF SMALL WATER SYSTEMS TO
UNDERSTAND THE IMPORTANCE OF MICROORGANISM CONTROL AND TO
EXPLAIN THE DESIGN CONCEPTS, COST ESTIMATING TECHNIQUES, AND
OPERATIONAL CONSIDERATIONS ASSOCIATED WITH CURRENT
TECHNOLOGICAL APPROACHES FOR MAINTAINING SUCH CONTROL.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011388

PUBLICATION DATE: JUN 83

TITLE: RADIONUCLIDE REMOVAL FOR SMALL PUBLIC WATER SYSTEMS.

DESCRIPTOR: *COSTS; *HANDBOOKS; *OPERATIONS (WATER);
*RADIATION; *RADIONUCLIDES; *UTILITIES; *WATER TREATMENT

DESCRIPTIVE NOTE: 163P. PRICE CODE: PC A08/MF A01; ORDER
NO.: PB84-194851

ABSTRACT: THIS DOCUMENT HAS BEEN PREPARED TO AID WATER
UTILITY OWNERS, ENGINEERS, OPERATORS AND MUNICIPAL MANAGERS
IN UNDERSTANDING AND DEALING WITH EXCESSIVE RADIONUCLIDE
LEVELS IN THEIR WATER SUPPLY. IT IS INTENDED TO BE USED FOR
DEFINING THE PROBLEM, DEVELOPING OR EVALUATING PROPOSED
SOLUTIONS, AND EXPLAINING TO WATER CONSUMERS WHY
RADIONUCLIDES ARE CONTROLLED AND WHAT THE APPROXIMATE COST
OF CONTROL WILL BE. THIS HANDBOOK IS DESIGNED AS A TECHNICAL
GUIDE TO RADIONUCLIDE REMOVAL FOR THOSE SMALLER SIZE SYSTEMS
THAT HAVE DECIDED THAT RADIONUCLIDE CONTROL IS DESIRABLE.
THIS DOCUMENT CONTAINS NO REGULATORY POLICY AND DOES NOT
OBLIGATE SYSTEMS TO USE ANY TREATMENT OR NONTREATMENT
TECHNIQUE TO REDUCE RADIONUCLIDE CONCENTRATIONS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011389

PUBLICATION DATE: JUN 84

TITLE: STORM WATER MANAGEMENT MODEL USER'S MANUAL, VERSION

3. ADDENDUM 1: EXTRAN (EXTENDED TRANSPORT).

PERSONAL AUTHOR: ROESNER, L. A.; AND OTHERS

DESCRIPTOR: *COMPUTER APPLICATIONS; *DRAINAGE; *EXTRAN;
*MANUALS; *MANAGEMENT; *MODELS; *COMPUTER SOFTWARE;
*SIMULATIONS; *STORMWATER; *SURFACE RUNOFF; *WASTEWATER
COLLECTION; *USER MANUALS

DESCRIPTIVE NOTE: 241P. PRICE CODE: PC A11/MF A01; ORDER
NO.: PB84-198431

ABSTRACT: THIS REPORT CONTAINS THE DOCUMENTATION AND USER'S
MANUAL FOR THE EXTENDED TRANSPORT (EXTRAN) BLOCK OF THE
STORM WATER MANAGEMENT MODEL (SWMM). EXTRAN IS A DYNAMIC
FLOW ROUTING MODEL USED TO COMPUTE BACKWATER PROFILES IN
OPEN CHANNEL AND/OR CLOSED CONDUIT SYSTEMS EXPERIENCING
UNSTEADY FLOW. IT REPRESENTS THE DRAINAGE SYSTEM AS LINKS
AND NODES, ALLOWING PARALLEL OR LOOPED PIPE NETWORKS; WEIRS,
ORIFICES, AND PUMPS; AND SYSTEM SURCHARGES TO BE SIMULATED.
EXTRAN IS USED MOST EFFICIENTLY IF IT IS ONLY APPLIED TO
THOSE PARTS OF THE DRAINAGE SYSTEM WHICH CANNOT BE SIMULATED
ACCURATELY BY SIMPLER, LESS COSTLY MODELS. THE EXTRAN MANUAL
IS DESIGNED TO GIVE THE USER COMPLETE INFORMATION ON
SETTING OF THE MODEL BOTH AS A BLOCK OF THE SWMM PACKAGE
AND AS AN INDEPENDENT MODEL. FORMULATION OF THE INPUT DATA
IS DISCUSSED IN DETAIL AND DEMONSTRATED BY SEVEN EXAMPLE
PROBLEMS. TYPICAL COMPUTER OUTPUT IS ALSO DISCUSSED. PROBLEM
AREAS WHICH THE USER MAY CONFRONT ARE DESCRIBED, AS WELL AS
THE THEORY ON WHICH THE EXTRAN MODEL RESTS. THE MANUAL
CONCLUDES WITH A COMPREHENSIVE DISCUSSION OF THE EXTRAN
CODE.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011390

PUBLICATION DATE: JUN 84

TITLE: GEOTHERMAL ENVIRONMENTAL IMPACT ASSESSMENT: AN
APPROACH TO GROUNDWATER IMPACTS FROM DEVELOPMENT,
CONVERSION, AND WASTE DISPOSAL.

PERSONAL AUTHOR: HESS, J. W.; AND OTHERS

DESCRIPTOR: *DEVELOPMENT; *ENERGY; *GEOTHERMAL ENERGY;
*GROUNDWATER; *ENVIRONMENTAL IMPACT; *MONITORING; *RESEARCH;
*WASTE DISPOSAL; *WATER QUALITY

DESCRIPTIVE NOTE: 291P. PRICE CODE: PC A13/MF A01; ORDER
NO.: PB84-198639

ABSTRACT: GROUNDWATER MONITORING FOR THE IMPACTS OF
GEOTHERMAL ENERGY DEVELOPMENT, CONVERSION AND WASTE DISPOSAL
IS SIMILAR TO GROUNDWATER MONITORING FOR OTHER PURPOSES
EXCEPT THAT ADDITIONAL INFORMATION IS NEEDED CONCERNING THE
GEOTHERMAL RESERVOIR. THE RESEARCH DESCRIBED HERE DEVELOPED
A SIX-STEP METHODOLOGY INCLUDING FAILURE ANALYSIS AND
COMPUTER-BASED CONTAMINANT TRANSPORT AND GEOCHEMICAL MODELS
TO DESIGN GROUNDWATER MONITORING PLANS. FAILURE DATA
ANALYSES INDICATE THAT PRODUCTION AND INJECTION WELLS HAVE

THE HIGHEST PROBABILITY OF FAILURE AND SHOULD BE THE FOCAL
POINTS FOR GROUNDWATER MONITORING. GROUNDWATER MONITORING
TECHNIQUES FALL INTO FOUR CATEGORIES: (1) MONITORING THE
INJECTION/PRODUCTION WELL, (2) MONITORING IN THE SATURATED
ZONE, (3) MONITORING IN THE UNSATURATED ZONE, AND (4)
MONITORING ON OR ABOVE THE GROUND SURFACE. LOCATION OF THE
MONITORING WELLS AND WHAT TO MEASURE IN THEM MAY BE
DETERMINED WITH THE AID OF COMPUTER CONTAMINANT TRANSPORT
AND GEOCHEMICAL MODELS. POLLUTE IS A NONDISPERSING
CONTAMINANT TRANSPORT GROUNDWATER COMPUTER MODEL THAT
ENABLES THE USER TO LOCATE A CONTAMINANT PLUME AT A GIVEN
TIME. PREDICTION OF RESULTANT FLUID CHEMISTRIES FROM A
LEAKED GEOTHERMAL FLUID MAY BE ESSENTIAL TO UNAMBIGUOUS
EVALUATION OF GEOTHERMAL FLUID IMPACT AT REMOTE GROUNDWATER
MONITORING SITES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011391

PUBLICATION DATE: JUN 84

TITLE: DESIGN INFORMATION ON ROTATING BIOLOGICAL
CONTACTORS.

PERSONAL AUTHOR: BRENNER, R. C.; AND OTHERS

DESCRIPTOR: *BIOLOGICAL CONTACTORS; *DESIGN; *EQUIPMENT;
*FACILITIES; *OPERATIONS (WASTEWATER); *ROTATING BIOLOGICAL
CONTACTORS; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 194P. PRICE \$10.00

ABSTRACT: THE RELATIVELY RAPID INTRODUCTION OF ROTATING
BIOLOGICAL CONTACTORS (RBC'S) INTO THE UNITED STATES FOR
MUNICIPAL WASTEWATER TREATMENT HAS RESULTED IN THE
WIDESPREAD APPLICATION OF A TECHNOLOGY WITH WHICH MANY
DESIGN ENGINEERS ARE NOT INTIMATELY FAMILIAR. OF NECESSITY,
MANY RBC DESIGNS INITIALLY WERE BASED SOLELY ON PROPRIETARY-
GENERATED EMPIRICAL DESIGN METHODOLOGY. MORE RECENTLY, AS
INTEREST IN THE PROCESS HAS INCREASED, MORE COMPLEX,
DETERMINISTIC DESIGN APPROACHES HAVE BEGUN TO APPEAR IN THE
TECHNICAL LITERATURE. THE PURPOSE OF THIS DOCUMENT IS TO
REVIEW AND ASSESS EXISTING RBC DESIGN PROCEDURES AND PROVIDE
MORE IN-DEPTH DESIGN INFORMATION ON CRITICAL FEATURES OF THE
RBC PROCESS AND KEY PARAMETERS AFFECTING ITS OPERATION AND
PERFORMANCE THAN IS TYPICALLY AVAILABLE TO THE DESIGN
ENGINEERING COMMUNITY. THE INFORMATION CONTAINED IN THIS
DOCUMENT IS INTENDED TO SUPPLEMENT AND QUALIFY THAT
AVAILABLE FROM RBC MANUFACTURERS AND IN THE PUBLISHED
LITERATURE. TOPICS ADDRESSED INCLUDE PROCESS AND DESIGN
CONSIDERATIONS FOR CARBONACEOUS REMOVAL, NITRIFICATION, AND
DENITRIFICATION; EQUIPMENT RELIABILITY AND SERVICE LIFE;
POWER REQUIREMENTS FOR AIR AND MECHANICAL DRIVE RBC UNITS;
AND GENERAL SYSTEM DESIGN CONSIDERATIONS INVOLVING
STRUCTURAL, HYDRAULIC, AND OPERATIONAL FLEXIBILITY. A MAJOR
PRIORITY IN THE PREPARATION OF THE DOCUMENT WAS GIVEN TO
EMPHASIZING PRACTICAL, USABLE DESIGN INFORMATION AS WELL AS
IMPORTANT THEORETICAL CONCEPTS.

AVAILABILITY: EPA INSTRUCTIONAL RESOURCES CENTER, 1200

CHAMBERS ROAD, ROOM 310, COLUMBUS, OH 43212

IRIS ACCESSION NUMBER: EW011392

PUBLICATION DATE: JUN 84

TITLE: TOXIWASP: A DYNAMIC MODEL FOR SIMULATING THE TRANSPORT AND FATE OF TOXIC CHEMICALS IN WATER BODIES.

PERSONAL AUTHOR: AMBROSE, R. B., JR.

DESCRIPTOR: *CHEMICALS; *MODELS; *RIVERS; *RESERVOIRS;
*ORGANIC CHEMICALS; *SEDIMENTS; *TOXIWASP; *TOXIC
SUBSTANCES; *WATER; *SIMULATIONS; *LAKES

DESCRIPTIVE NOTE: 27P. PRICE CODE: PC A03/MF A01; ORDER
NO.: PBB4-201698

ABSTRACT: TOXIWASP IS A DYNAMIC MODEL FOR SIMULATING THE TRANSPORT AND FATE OF TOXIC CHEMICALS IN WATER BODIES. TWO STATE VARIABLES ARE SIMULATED: ORGANIC CHEMICAL AND TOTAL SEDIMENT. THE GENERALIZED CHEMICAL MODEL CAN BE USED FOR PROBLEMS REQUIRING DYNAMIC TRANSPORT AND LOADING CAPABILITIES, SIMPLE MECHANISTIC SEDIMENT PREDICTIONS, AND PROCESS-DERIVED CHEMICAL PREDICTIONS. TOXIWASP CAN BE APPLIED TO STRATIFIED LAKES AND RESERVOIRS, LARGE RIVERS, ESTUARIES, AND COASTAL WATERS. CREATED FOR USE IN EXPOSURE ASSESSMENTS, THE MODEL ALLOWS THE USER TO PERFORM SIMPLE DYNAMIC SIMULATIONS OF POTENTIALLY TOXIC ORGANIC CHEMICALS, SUCH AS PESTICIDES. DYNAMIC SIMULATIONS ALLOW THE CONSIDERATION OF VARIABLE LOADS, THE PREDICTION OF PEAK EVENTS, AND THE ESTIMATION OF TIME-VARYING CHEMICAL EXPOSURE.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011393

PUBLICATION DATE: 83

TITLE: POLYELECTROLYTE USERS' MANUAL.

PERSONAL AUTHOR: LOCKYEAR, C. F., AND OTHERS

DESCRIPTOR: *DEWATERING; *MANUALS; *OPERATIONS (WATER);
*OPERATIONS (WASTEWATER); *POLYELECTROLYTES; *SLUDGE; *USER
MANUALS; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 58P. PRICE CODE: PC E07/MF E07; ORDER
NO.: PBB4-201748

ABSTRACT: THE PURPOSE OF THIS MANUAL IS TO EXPLAIN HOW TO USE POLYELECTROLYTES TO BEST EFFECT IN THE TREATMENT OF POTABLE WATERS AND SEWAGE AND IN DEWATERING WATER AND WASTEWATER SLUDGES. BY EXPLAINING BRIEFLY HOW POLYELECTROLYTES WORK, THIS MANUAL ENABLES THE READER TO SELECT THE MOST SUITABLE TYPE OF POLYELECTROLYTE FOR EACH OF THE VARIOUS USES, AND ALSO TO ASSESS THE MOST APPROPRIATE DOSE. THE MANUAL ALSO DESCRIBES METHODS SUITABLE FOR

PREPARATION OF POLYELECTROLYTE SOLUTIONS. THE MANUAL HAS BEEN WRITTEN FOR STAFF RESPONSIBLE FOR THE OPERATION OF A WATER OR SEWAGE WORKS AND FOR SCIENTIFIC STAFF RESPONSIBLE FOR THE MONITORING OF SUCH WORKS. THE DIFFERENT SECTIONS HAVE BEEN COLOUR CODED TO ALLOW FOR EASY REFERENCE.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011394

PUBLICATION DATE: 83

TITLE: SLUDGE TREATMENT PLANT FOR WATERWORKS.

PERSONAL AUTHOR: VANDEN, J. H.

DESCRIPTOR: *DESIGN; *ENGINEERING; *EQUIPMENT; *FACILITIES;
*OPERATIONS (WASTEWATER); *SLUDGE; *TECHNOLOGY; *WASTEWATER
TREATMENT

DESCRIPTIVE NOTE: 83P. PRICE CODE: PC E08/MF E08; ORDER
NO.: PBB4-201771

ABSTRACT: THIS IS AN ENGINEERS' DESIGN MANUAL INTENDED PRIMARILY FOR USE IN THE UNITED KINGDOM IN THE 1980S WHEN SOME HUNDREDS OF SLUDGE TREATMENT SCHEMES ARE REQUIRED FOR ALL SIZES OF WATERWORKS. MOST OF THESE WILL BE ADDITIONS TO EXISTING WORKS AND SELECTION OF THE MOST RELIABLE AND ECONOMICAL PLANT WILL DEPEND UPON A PROPER APPRECIATION AND EXPLOITATION OF THE NATURE OF THE SLUDGE, ITEMS OF EXISTING PLANT AND THE LOCAL MEANS OF DISPOSAL. THE OPENING SECTIONS DESCRIBE THE ORIGIN, NATURE AND BEHAVIOUR OF WATERWORKS SLUDGES AND HOW THEIR SETTLEMENT AND THICKENING CAN BE ENHANCED BY THE APPLICATION OF POLYELECTROLYTES. THE DRYING AND HANDLING PROPERTIES OF CONCENTRATED SLUDGES ARE DESCRIBED AND, AS THE FIRST STEP TO PLANT SIZING, METHODS ARE GIVEN FOR MEASURING AND ESTIMATING THE AMOUNT OF SLUDGE PRODUCED AT A WORKS. THERE FOLLOWS A COMPREHENSIVE REVIEW OF PRACTICE AND TECHNOLOGY IN SLUDGE TREATMENT, HIGHLIGHTING THE APPLICATION OF CONTINUOUS POLYMER THICKENING WHICH HAS RESULTED FROM RESEARCH BY THE WATER RESEARCH CENTER (WRC). ALL THE METHODS OF DEWATERING IN CURRENT USE ARE REVIEWED: AIR DRYING, FILTER PRESSING, CENTRIFUGING, VACUUM FILTRATION AND FREEZE-THAW. EACH TREATMENT PROCESS IS EXPLAINED AND DESCRIBED AND PROCEDURES FOR SIZING EQUIPMENT ARE GIVEN. A SEPARATE SECTION BRIEFLY DESCRIBES METHODS RECENTLY DEVELOPED BUT NOT YET IN USE. THE FINAL SECTIONS ADVISE THE DESIGNER ON THE SELECTION OF FLOWSHEET FOR A SLUDGE TREATMENT PLANT, ITS LAYOUT AND THE PROVISION OF ANCILLARY EQUIPMENT, FOLLOWED BY A WORKED EXAMPLE.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011395

PUBLICATION DATE: JUN 84

TITLE: CHROMATOGRAPHY FOR WATER POLLUTION ANALYSIS. 1977-

MAY, 1984 (CITATIONS FROM THE ENERGY DATA BASE).

DESCRIPTOR: *ANALYTICAL TECHNIQUES: *ANNOTATED
BIBLIOGRAPHIES; BIBLIOGRAPHIES: *CHROMATOGRAPHY: *LABORATORY
PROCEDURES: *POLLUTANTS; *WATER POLLUTION; *WATER QUALITY

DESCRIPTIVE NOTE: 111P. PRICE CODE: PC N01/MF N01; ORDER
NO.: PBB4-867688

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING
CHROMATOGRAPHIC ANALYSIS OF WATER POLLUTANTS.
CHROMATOGRAPHIC DETERMINATION, SOURCE IDENTIFICATION, AND
CHARACTERIZATION OF POLLUTANTS GENERATED BY OIL SPILLS,
INDUSTRIAL PROCESSES, AND MUNICIPAL WASTES ARE DISCUSSED.
WATER POLLUTION EFFECTS ON AQUATIC ECOSYSTEMS AND POLLUTANTS
IN DRINKING WATER, GROUNDWATER, LAKE AND SEA WATER, AND
RIVER WATER ARE EVALUATED AND ANALYZED. (CONTAINS 118
CITATIONS FULLY INDEXED AND INCLUDING A TITLE LIST.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011396

PUBLICATION DATE: JUN 84

TITLE: AQUATIC POPULATION DYNAMICS. 1978 - JUNE, 1984
(CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA
BASE).

DESCRIPTOR: *ANALYTICAL TECHNIQUES: *ANNOTATED
BIBLIOGRAPHIES; BIBLIOGRAPHIES: *AQUATIC POPULATION
DYNAMICS; *ECOLOGY; *ENVIRONMENT; *MODELS; *POPULATION
TRENDS: *WATER POLLUTION

DESCRIPTIVE NOTE: 195P. PRICE CODE: PC N01/MF N01; ORDER
NO.: PBB4-868974

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING
AQUATIC POPULATION DYNAMICS. TOPICS INCLUDE PREDATOR-PREY
RELATIONSHIPS, POPULATION ECOLOGY, LABORATORY CULTURE, WATER
POLLUTION EFFECTS, SEASONAL VARIATION, AND NUTRIENTS
BIOASSAY. TROPHIC DYNAMICS, FOOD CHAINS, SPECIES DIVERSITY,
BOTTOM SEDIMENTS, NUTRIENT CYCLING, MORTALITY EFFECTS, LIFE
HISTORY STUDIES, MODELING, AND ANALYTICAL TECHNIQUES ARE
DISCUSSED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 175
CITATIONS, 70 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS
EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011397

PUBLICATION DATE: JUN 84

TITLE: ECOLOGY OF PESTICIDE WATER POLLUTION. 1978 - MAY,
1984 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES;

*ECOLOGY; *AQUATIC ENVIRONMENT; *ENVIRONMENT; GROUNDWATER;
LAKES; OCEANS; *PESTICIDES; *RESEARCH; RIVERS; STREAMS;
*WATER POLLUTION

DESCRIPTIVE NOTE: 236P. PRICE CODE: PC N01/MF N01; ORDER
NO.: PBB4-868314

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING
PESTICIDES IN THE AQUATIC ENVIRONMENT. THIS INCLUDES LAKES,
RIVERS, OCEANS, ESTUARIES, STREAMS, AND GROUND WATER. THE
TOPICS COVER THE EFFECTS UPON PLANTS, ANIMALS, AND HUMANS.
CHEMICAL DETERIORATION IN SOILS AND WATER, SOURCES,
MODELING, POLLUTION BY, AND ACCUMULATION AS IT OCCURS IN
SOILS, PLANTS, AND ANIMALS ARE DESCRIBED. (THIS UPDATED
BIBLIOGRAPHY CONTAINS 246 CITATIONS, 67 OF WHICH ARE NEW
ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011398

PUBLICATION DATE: JUN 84

TITLE: WASTEWATER AND WATER TREATMENT: ANION EXCHANGE.
1977 - MAY 1984 (CITATIONS FROM THE SELECTED WATER RESOURCES
ABSTRACTS DATA BASE)

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES;
*ANION EXCHANGE; *ANIONS; *OPERATIONS (WATER); *OPERATIONS
(WASTEWATER); *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 108P. PRICE CODE: PC N01/MF N01; ORDER
NO.: PBB4-868587

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING
THE THEORY, METHODS, AND APPLICATIONS OF ANION EXCHANGE IN
THE TREATMENT OF POTABLE WATER AND WASTEWATER. TOPICS
INCLUDE ANION EXCHANGE RESINS AND MEMBRANES, DESALINATION
TECHNIQUES, AND PROCESS EVALUATIONS. METHODS FOR ANION
ANALYSIS USING CHROMATOGRAPHIC TECHNIQUES ARE ALSO
CONSIDERED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 106
CITATIONS, 18 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS
EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011399

PUBLICATION DATE: AUG 84

TITLE: ACCOUNTABILITY MANAGEMENT BRINGS REVENUE INCREASES.

PERSONAL AUTHOR: ORR, ROBERT J.

DESCRIPTOR: *COSTS; *DRINKING WATER; *MANAGEMENT; *PROGRAM
DESCRIPTIONS; *WATER DISTRIBUTION; *WATER LOSS

DESCRIPTIVE NOTE: 22-24, 26P.

ABSTRACT: STAFF MEMBERS OF A MIDWEST WATER UTILITY CAME TO REALIZE THAT UNACCOUNTED FOR WATER IN THEIR DISTRIBUTION SYSTEM COULD BE EQUATED WITH SUBSTANTIAL REVENUE LOSSES. DESCRIBED IS A WATER LOSS CONTROL PROGRAM IN ILLINOIS.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N9

IRIS ACCESSION NUMBER: EW011400

PUBLICATION DATE: AUG 84

TITLE: ENERGY PRACTICES HELP MAKE A WINNER.

PERSONAL AUTHOR: VIK, THOMAS E.; AND OTHERS

DESCRIPTOR: *AWARDS; *DESIGN; *ELECTRICITY; *ENERGY; *ENERGY CONSERVATION; *FACILITIES; *OPERATIONS (WASTEWATER); *PROGAM DESCRIPTIONS; *WASTEWATER TREATMENT; *WISCONSIN

DESCRIPTIVE NOTE: 27-29, 40P.

ABSTRACT: DESCRIBED IS A WISCONSIN WASTEWATER TREATMENT PLANT THAT RECEIVED TWO RECOGNITIONS SINCE IT BEGAN TO OPERATE-A DESIGN AWARD FROM THE ENGINEERING COMMUNITY AND AN ENERGY-EFFICIENCY AWARD GIVEN BY A NATIONAL ELECTRIC POWER ASSOCIATION.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N9

IRIS ACCESSION NUMBER: EW011401

PUBLICATION DATE: AUG 84

TITLE: TESTING THE BIG PUMPS OF THE TARP SYSTEM.

PERSONAL AUTHOR: DALTON, FRANK E.; AND OTHERS

DESCRIPTOR: *FLOOD CONTROL; *ILLINOIS; *OPERATIONS (WASTEWATER); *PUMPING STATIONS; *PUMPS; *PUMP HOUSES; *TARP; *WASTEWATER COLLECTION; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 30-32P.

ABSTRACT: DESCRIBED ARE THE PUMPS AND PUMPHOUSES THAT WILL BE 350 FT. UNDERGROUND IN CHICAGO'S TARP WASTEWATER COLLECTION SYSTEM.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N9

IRIS ACCESSION NUMBER: EW011402

PUBLICATION DATE: AUG 84

TITLE: WHAT A DECADE CAN DO.

DESCRIPTOR: ESTUARIES; *ISSUES; LAKES; RESERVOIRS; *REPORTS; STREAMS; *TRENDS; *WATER QUALITY; *STATE PROGRAMS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 910-23P.

ABSTRACT: THIS ARTICLE IS A SUMMARY OF A REPORT BY THE ASSOCIATION OF STATE AND INTERSTATE WATER POLLUTION CONTROL ADMINISTRATORS. IT SUMMARIZES ACTIVITY IN THE UNITED STATES RELATED TO WATER QUALITY FROM 1972-1982. INCLUDED IS INFORMATION ON STATUS, ISSUES, AND PROBLEMS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N8

IRIS ACCESSION NUMBER: EW011403

PUBLICATION DATE: AUG 84

TITLE: MUNICIPAL COMPLIANCE - ANOTHER VIEW.

PERSONAL AUTHOR: SCHAEFFER, DAVID J.; AND OTHERS

DESCRIPTOR: *COMPLIANCE; *CAO; *INDUSTRIAL WASTES; *MUNICIPAL WASTES; *NONCOMPLIANCE; *REPORTS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 924-27P.

ABSTRACT: THIS ARTICLE REVIEWS AND REANALYZES A US GENERAL ACCOUNTING OFFICE STUDY OF NONCOMPLIANCE RATES OF MUNICIPAL AND INDUSTRIAL DISCHARGERS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N8

IRIS ACCESSION NUMBER: EW011404

PUBLICATION DATE: AUG 84

TITLE: THE CONCURRENT DEVELOPMENT OF AN INDUSTRIAL WASTE PRETREATMENT PROGRAM AND RESIDUAL SOLIDS MANAGEMENT PLAN.

PERSONAL AUTHOR: WILSON, DAVID M.; AND OTHERS

DESCRIPTOR: *INDUSTRIAL WASTES; *MANAGEMENT; *RECOMMENDATIONS; *PLANNING; *PRETREATMENT; *RESIDUAL SOLIDS; *SLUDGE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 928-35P.

ABSTRACT: THE QUALITY OF SLUDGE FROM WASTEWATER TREATMENT IS LARGELY A FUNCTION OF THE LOADING OF INDUSTRIAL WASTES TO THE TREATMENT PLANT. BECAUSE THEY CONTROL THE SLUDGE DISPOSAL AND REUSE OPTIONS AVAILABLE TO THE MUNICIPALITY, A PRETREATMENT PROGRAM AND A RESIDUAL SOLIDS MANAGEMENT PLAN SHOULD BE DEVELOPED SIMULTANEOUSLY. THIS PAPER DESCRIBES THE PROGRAM DEVELOPED FOR TULSA, OKLAHOMA.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N8

IRIS ACCESSION NUMBER: EW011405

PUBLICATION DATE: AUG 84

TITLE: SOIL-AQUIFER TREATMENT - A NEW APPROACH TO AN OLD METHOD OF WASTEWATER REUSE.

PERSONAL AUTHOR: IDELOVITCH, EMANUEL; MICHAEL, MEDY

DESCRIPTOR: *RECYCLING; *SOIL-AQUIFER TREATMENT; *WATER REUSE; *WASTEWATER TREATMENT; *WATER QUALITY

DESCRIPTIVE NOTE: 936-43P.

ABSTRACT: SOIL-AQUIFER TREATMENT OF WASTEWATER IS A RELIABLE, LOW-COST, AND EASILY OPERATED SYSTEM FOR WATER STORAGE AND REUSE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N8

IRIS ACCESSION NUMBER: EW011406

PUBLICATION DATE: AUG 84

TITLE: TERTIARY FILTRATION: PRACTICAL DESIGN CONSIDERATIONS.

PERSONAL AUTHOR: SIEMAK, ROBERT C.

DESCRIPTOR: *DESIGN; *FACILITIES; *FILTRATION; *RECYCLING; *TERTIARY FILTRATION; *WATER REUSE; *WATER RESOURCES; *WATER RECLAMATION

DESCRIPTIVE NOTE: 944-49P.

ABSTRACT: UPSTREAM PROCESS RELIABILITY IS ESSENTIAL FOR EFFECTIVE TERTIARY FILTRATION IN WATER RECLAMATION PROJECTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N8

IRIS ACCESSION NUMBER: EW011407

PUBLICATION DATE: AUG 84

TITLE: STABILIZATION OF SLUDGE FROM AN OXIDATION DITCH.

PERSONAL AUTHOR: NOVAK, JOHN T.; AND OTHERS

DESCRIPTOR: *OXIDATION DITCHES; *PERFORMANCE EVALUATION; *SLUDGE; *SLUDGE TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 950-54P.

ABSTRACT: WASTE SLUDGE BECOMES MORE STABLE AS SLUDGE AGE INCREASES, AND SPECIFIC OXYGEN UPTAKE RATE IS AN EXCELLENT INDICATOR OF PUTRESCIBILITY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION;

V56 N8

IRIS ACCESSION NUMBER: EW011408

PUBLICATION DATE: AUG 84

TITLE: SLUDGE DEWATERING AND DISPOSAL IN THE PULP AND PAPER INDUSTRY.

PERSONAL AUTHOR: AMBERG, HERMAN R.

DESCRIPTOR: *INDUSTRY; *INDUSTRIAL WASTES; *PAPER INDUSTRY; *SLUDGE; *SLUDGE DEWATERING

DESCRIPTIVE NOTE: 962-69P.

ABSTRACT: THE MOST WIDELY USED DEWATERING PROCESSES IN THE INDUSTRY TODAY ARE VACUUM FILTERS, BELT FILTER PRESSES, AND CENTRIFUGES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N8

IRIS ACCESSION NUMBER: EW011409

PUBLICATION DATE: AUG 84

TITLE: USE OF COAGULANTS TO TREAT SEAFOOD PROCESSING WASTEWATERS.

PERSONAL AUTHOR: JOHNSON, RONALD A.; CALLANGER, SUSAN M.

DESCRIPTOR: *COAGULANTS; *COSTS; *BY-PRODUCTS; *INDUSTRIAL WASTES; *PERFORMANCE EVALUATION; *SEAFOOD INDUSTRY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 970-76P.

ABSTRACT: HYDROCYCLONES FOLLOWED BY COAGULANT DOSING AND DEWATERING ARE VERY EFFECTIVE, BUT BY-PRODUCT RECOVERY MAY BE NECESSARY FOR COST EFFECTIVENESS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N8

IRIS ACCESSION NUMBER: EW011410

PUBLICATION DATE: AUG 84

TITLE: INDUSTRIAL WASTEWATER TREATMENT WITH WATER REUSE AT A COAL-FIRED GENERATING STATION.

PERSONAL AUTHOR: WAGNER, J. F.; AND OTHERS

DESCRIPTOR: *COAL-FIRED GENERATORS; *ELECTRIC INDUSTRY; *INDUSTRIAL WASTES; *GENERATORS; *FACILITIES; *PERFORMANCE EVALUATION; *WATER REUSE; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 977-82P.

ABSTRACT: THE TREATMENT SYSTEM, NOW OPERATING WITHIN ALL REGULATORY CRITERIA, HANDLES VARIOUS LOW-VOLUME WASTES ALONG WITH COAL PILE RUNOFF AND ASH HANDLING WASTES.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N8

IRIS ACCESSION NUMBER: EW011411

PUBLICATION DATE: AUG 84

TITLE: INACTIVATION OF NAEGLERIA AND GIARDIA CYSTS IN WATER BY OZONATION.

PERSONAL AUTHOR: WICKRAMANAYAKE, G. B.; AND OTHERS

DESCRIPTOR: *DISINFECTION; *GIARDIA; *NAEGLERIA; *OZONE; *PERFORMANCE EVALUATION; *WATER TREATMENT

DESCRIPTIVE NOTE: 983-88P.

ABSTRACT: EMPIRICAL CONSTANTS CAN BE USED WITH CONFIDENCE TO COMPARE THE EFFECTIVENESS OF DISINFECTANTS OR THE SENSITIVITY OF CYSTS.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N8

IRIS ACCESSION NUMBER: EW011416

PUBLICATION DATE: 84

TITLE: WHO PUTS THE WATER IN THE TAPS?

PERSONAL AUTHOR: CHAUHAN, SUMI KRISHNA; AND OTHERS

DESCRIPTOR: *COMMUNITY DEVELOPMENT; *DEVELOPING COUNTRIES; *DRINKING WATER; *HEALTH; *LAND USE; *SANITATION; *WATER; *WATER SUPPLY

DESCRIPTIVE NOTE: PRICE: \$7.00

ABSTRACT: THIS PUBLICATION CONTAINS CONTRIBUTIONS FROM SIX AUTHORS FROM DIFFERENT PARTS OF THE DEVELOPING WORLD ON THE SUBJECT OF WATER, SANITATION AND HEALTH IN RELATION TO LAND USE, COMMUNITY DEVELOPMENT AND VILLAGE-LEVEL ENGINEERING.

AVAILABILITY: EARTHSKAN, 10 PERCY STREET, LONDON W1P 0DR UNITED KINGDOM

IRIS ACCESSION NUMBER: EW011419

PUBLICATION DATE: MAY 84

TITLE: EADS (ENVIRONMENTAL ASSESSMENT DATA SYSTEMS) LIQUID EFFLUENTS DATA SYSTEM, 1982.

PERSONAL AUTHOR: REIDER, J. P.

DESCRIPTOR: *COMPUTER APPLICATIONS; *DATA SYSTEMS; *EFFLUENTS; *ENVIRONMENT; *CHEMICALS; *HAZARDOUS WASTES; *LEDS; *EPA; *EADS; *POLLUTANTS; *PRIORITY POLLUTANTS; *SAMPLING; *WASTEWATER

DESCRIPTIVE NOTE: 38P. PRICE CODE: PC A03/MF A01; ORDER NO.: PB84-194091

ABSTRACT: THE REPORT IS THE FIRST DATA SUMMARY OF WASTEWATER SAMPLING AND ANALYSIS RESULTS COMPILED IN EPA'S LIQUID EFFLUENTS DATA SYSTEM (LEDS). LEDS IS A COMPONENT OF A GROUP OF RELATED COMPUTERIZED DATA BASES -- ENVIRONMENTAL ASSESSMENT DATA SYSTEMS (EADS) -- THAT DESCRIBE MULTIMEDIA DISCHARGES FROM ENERGY SYSTEMS AND INDUSTRIAL PROCESSES. EADS WAS DESIGNED TO AID RESEARCHERS IN ENVIRONMENTAL ASSESSMENT, SOURCE CHARACTERIZATION, AND CONTROL TECHNOLOGY DEVELOPMENT. THE REPORT SUMMARIZES DATA COMPILED FROM IMPLEMENTATION OF LEDS IN 1980 THROUGH 1982. IT LISTS SOURCES REPORTED IN LEDS, FEED MATERIALS USED, CHEMICAL ANALYSIS DATA ON HAZARDOUS AND PRIORITY POLLUTANTS, AND THE NUMBER OF SAMPLES FOR EACH SOURCE.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011420

PUBLICATION DATE: MAY 84

TITLE: MONITORING INTEGRATED ENERGY SYSTEMS AT A WASTEWATER TREATMENT PLANT IN MAINE.

PERSONAL AUTHOR: FULLER, D. R.; AND OTHERS

DESCRIPTOR: *ENERGY; *ENERGY USE; *ENERGY SYSTEMS; *FACILITIES; *MAINE; *MONITORING; *PERFORMANCE EVALUATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 140P. PRICE CODE: PC A07/MF A01; ORDER NO.: PB84-197292

ABSTRACT: A PROJECT WAS UNDERTAKEN TO MONITOR THE PERFORMANCE OF AN INTEGRATED ENERGY SYSTEM AT THE WILTON, MAINE, WASTEWATER TREATMENT PLANT. THESE SYSTEMS INCLUDED ACTIVE AND PASSIVE SOLAR HEATING, EFFLUENT HEAT RECOVERY, DICESTER GAS GENERATION, AIR-TO-AIR HEAT RECOVERY, AND ELECTRICITY GENERATION USING DICESTER GAS. TO ACCOMPLISH THE MONITORING, AN INSTRUMENTATION SYSTEM WAS INSTALLED AND DATA WERE COLLECTED OVER THE PERIOD FROM MAY 1979 TO MARCH 1981. THIS INSTRUMENTATION SYSTEM INCLUDES SOLAR PYRANOMETERS, HYDRONIC BTU COMPUTERS, ELECTRICAL AND GAS METERS, A WEATHER STATION, AND NUMEROUS TEMPERATURE TRANSMITTERS. DATA FOR THE SOLAR AND DICESTER SYSTEMS ARE AVAILABLE IN BOTH DIGITAL AND ANALOG FORMS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011421

PUBLICATION DATE: 84

TITLE: ASBESTOS IN DRINKING WATER: RESULTS OF A SURVEY.

PERSONAL AUTHOR: CONWAY, D. M.; LACEY, R. F.

DESCRIPTOR: *ASBESTOS; *DRINKING WATER; *PUBLIC HEALTH;
*SAMPLING; *WATER TREATMENT

DESCRIPTIVE NOTE: 74P. PRICE CODE: PC E07/MF E07; ORDER
NO.: PB84-201763

ABSTRACT: THE MAIN PURPOSE OF THIS REPORT IS TO DESCRIBE THE RESULTS OF THE AUTHORS RESEARCH. AS BACKGROUND TO THIS, THE REPORT BEGINS BY OUTLINING THE MINERALOGY AND USAGE OF ASBESTOS AND THE ROUTES BY WHICH ASBESTOS CAN ENTER THE WATER CYCLE. THE POSSIBLE HEALTH EFFECTS OF INGESTING ASBESTOS VIA BEVERAGES AND FOOD ARE ALSO REVIEWED. THE METHODS USED IN SAMPLING AND DETERMINING ASBESTOS IN WATER ARE BRIEFLY DESCRIBED, ALTHOUGH SOME OF THE METHODOLOGY HAS ALREADY BEEN DISCUSSED IN AN EARLIER REPORT. (COPYRIGHT (C) WATER RESEARCH CENTER, 1984.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011422

PUBLICATION DATE: MAY 84

TITLE: WASTE HEAT UTILIZATION. 1980-1983 (CITATION FROM
THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *AQUACULTURE;
BIBLIOGRAPHIES; *ENERGY CONSERVATION; *HEAT; *HEATING;
*WASTE HEAT; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 16P. PRICE CODE: PC N01/MF N01; ORDER
NO.: PB84-800176

ABSTRACT: THIS BIBLIOGRAPHY COVERS RECOVERING WASTE HEAT FROM POWER PLANTS, BUILDINGS, INDUSTRIAL PROCESSES, AND WASTE DISPOSAL. STUDIES OF WASTE HEAT BOILERS AND THE USE OF WASTE HEAT FOR IRRIGATION, SEWAGE TREATMENT, ODOR CONTROL, DESALINATION, HEATING, AND AQUACULTURE ARE INCLUDED. (CONTAINS 156 CITATIONS).

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011423

PUBLICATION DATE: JUN 84

TITLE: EPA (ENVIRONMENTAL PROTECTION AGENCY) METHOD STUDY
30, METHOD 625 - BASE/NEUTRALS, ACIDS AND PESTICIDES.

DESCRIPTOR: *ACIDS; *BASES; *CHROMATOGRAPHY; *EPA; *CAS

CHROMATOGRAPHY; *METHOD STUDIES; *METHOD 625; *PESTICIDES

DESCRIPTIVE NOTE: 474P. PRICE CODE: PC A20/MF A01; ORDER
NO.: PB84-206372

ABSTRACT: THE WORK WHICH IS DESCRIBED IN THIS REPORT WAS PERFORMED FOR THE PURPOSE OF VALIDATING, THROUGH AN INTERLABORATORY STUDY, METHOD 625 FOR THE ANALYSIS OF THE BASE/NEUTRAL, ACID, AND PESTICIDE PRIORITY POLLUTANTS. THIS METHOD IS BASED ON THE EXTRACTION AND CONCENTRATION OF THE VARIOUS ANALYTES FOLLOWED BY THEIR DETERMINATION THROUGH GAS CHROMATOGRAPHY USING A LOW RESOLUTION MASS SPECTROMETER AS THE MEASURING DEVICE. PARTICIPATING LABORATORIES WERE SELECTED BASED UPON TECHNICAL EVALUATION OF PROPOSALS AND UPON THE ANALYSES RESULTS OF PRESTUDY SAMPLES. THE DATA OBTAINED FROM THE INTERLABORATORY STUDY WERE ANALYZED EMPLOYING A SERIES OF COMPUTER PROGRAMS KNOWN AS THE INTERLABORATORY METHOD VALIDATION STUDY (IMVS) SYSTEM WHICH WAS DESIGNED TO IMPLEMENT ASTM PROCEDURE D2777.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011424

PUBLICATION DATE: JUN 84

TITLE: ANION EXCHANGE RESINS: STRUCTURE, FORMULATION, AND
APPLICATIONS. 1977-MAY, 1984 (CITATIONS FROM THE RUBBER AND
PLASTICS RESEARCH

DESCRIPTOR: *APPLICATIONS; *ANION EXCHANGE RESINS;
*ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; CHEMICAL
STRUCTURE; *ORGANIC COMPOUNDS; PHYSICAL PROPERTIES; *WATER
TREATMENT; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 64P. PRICE CODE: PC N01/MF N01; ORDER
NO.: PB84-869296

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE FORMULATION AND SYNTHESIS OF ANION EXCHANGE RESINS BASED ON SUCH RESINS AS AMIDES, POLYETHYLENES AND STYRENES. OSMOTIC PROPERTIES, EXCHANGE KINETICS BEHAVIOR, SORPTION PROPERTIES, STRUCTURE STUDIES AND TEMPERATURE RELATED PERFORMANCE EFFECTS ON ANION EXCHANGE RESINS ARE CONSIDERED. ANION EXCHANGE CHROMATOGRAPHY OF METALS AND LIQUIDS, AND APPLICATIONS IN WATER PURIFICATION AND POLLUTION CONTROL ARE INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 76 CITATIONS, 16 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011425

PUBLICATION DATE: JUN 84

TITLE: WATER POLLUTION AND WASTEWATER TREATMENT IN THE
DAIRY INDUSTRY. 1977-MAY, 1984 (CITATIONS FROM THE SELECTED
WATER RESOURCES ABSTRA

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *BIBLIOGRAPHIES;
*DAIRY INDUSTRY; *INDUSTRIAL WASTES; *WASTEWATER TREATMENT;
*WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 99P. PRICE CODE: PC N01/MF N01; ORDER
NO.: PB84-869379

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING
EFFLUENT CONTROL AND TREATMENT IN THE DAIRY INDUSTRY. THE
USE OF MEMBRANE FILTRATION, WATER HYACINTHUS, AND ENZYMES ARE
AMONG THE TREATMENT METHODS DISCUSSED. THE EFFECTS OF
PROCESS DESIGN ON REDUCED WATER USE AND WASTE IN THE DAIRY
INDUSTRY ARE INCLUDED. (CONTAINS 91 CITATIONS FULLY INDEXED
AND INCLUDING A TITLE LIST.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011426

PUBLICATION DATE: JUN 84

TITLE: WELDING: PERSONNEL SAFETY. 1966-MAY, 1984
(CITATIONS FROM THE METALS ABSTRACTS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES;
*HEALTH; *OCCUPATIONAL SAFETY; *SAFETY; *WELDING

DESCRIPTIVE NOTE: 83P. PRICE CODE: PC N01/MF N01; ORDER
NO.: PB84-868975

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING
HEALTH AND OCCUPATIONAL SAFETY HAZARDS ENCOUNTERED BY
WELDERS. RESEARCH IN FOREIGN SUBSTANCE PRODUCTION,
RESPIRATORY HEALTH HAZARDS, OCULAR HAZARDS, INJURY TO
EXTREMITIES, DAMAGE TO PROPERTY AND EQUIPMENT, AND AUTOMATIC
WELDING AND ERGONOMICS ARE DISCUSSED. SAFE WORK PRINCIPLES,
SAFE WELD DESIGN AND PROPER MATERIALS, AND EQUIPMENT
INSPECTIONS ARE ALSO DISCUSSED. TOXIC MATERIAL CONTROL IS
EMPHASIZED IN ANOTHER BIBLIOGRAPHY. (THIS UPDATED
BIBLIOGRAPHY CONTAINS 141 CITATIONS, 31 OF WHICH ARE NEW
ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011427

PUBLICATION DATE: JUN 84

TITLE: TOXICITY OF NICKEL. 1970-JUNE, 1984 (CITATIONS FROM
THE NT'S DATA BASE).

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ANNOTATED
BIBLIOGRAPHIES; BIBLIOGRAPHIES; *ENVIRONMENTAL EFFECTS;
*HEALTH; *NICKEL; *STANDARDS; *TOXICITY

DESCRIPTIVE NOTE: 179P. PRICE CODE: PC N01/MF N01; ORDER
NO.: PB84-868991

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING
THE TOXICITY, CARCINOGENICITY, ENVIRONMENTAL POLLUTION, AND
OTHER HAZARDS AND ADVERSE EFFECTS OF NICKEL. THE DETECTION,
CHARACTERIZATION, ANALYTICAL METHODS, STANDARDS, AND REMOVAL
FROM THE ENVIRONMENT ARE DISCUSSED. THESE ASPECTS OF NICKEL
ARE DEALT WITH IN RELATION TO AQUATIC AND TERRESTRIAL FLORA
AND FAUNA, INCLUDING HUMANS. (THIS UPDATED BIBLIOGRAPHY
CONTAINS 184 CITATIONS, 11 OF WHICH ARE NEW ENTRIES TO THE
PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011430

PUBLICATION DATE: AUG 84

TITLE: A HISTORY OF THE ATTEMPTED FEDERAL REGULATION
REQUIRING GAC ADSORPTION FOR WATER TREATMENT.

PERSONAL AUTHOR: SYMONS, JAMES M.

DESCRIPTOR: *ACTIVATED CARBON; *GAC; *FEDERAL ROLE;
*GRANULAR ACTIVATED CARBON; *REGULATIONS; *WATER TREATMENT

DESCRIPTIVE NOTE: 34-43P.

ABSTRACT: A DECADE OF CONTROVERSY, UNCERTAINTY, AND
CONFUSION IS RECALLED. THE AUTHOR TRACES THE FEDERAL
GOVERNMENT'S ATTEMPTS TO REQUIRE WATER SYSTEMS TO USE GAC
ADSORPTION TREATMENT FOR THE REMOVAL OF SYNTHETIC ORGANIC
CONTAMINANTS PRESENT IN SOURCE WATERS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76
N8

IRIS ACCESSION NUMBER: EW011431

PUBLICATION DATE: AUG 84

TITLE: A SURVEY OF PROBLEMS WITH REVERSE OSMOSIS WATER
TREATMENT.

PERSONAL AUTHOR: EISENBERG, TALBERT N.; MIDDLEBROOKS, E.
JOE

DESCRIPTOR: *FACILITIES; *OPERATIONS (WATER); *PERFORMANCE
EVALUATION; *RECOMMENDATIONS; *REVERSE OSMOSIS; *SURVEYS;
*TECHNOLOGY; *WATER TREATMENT

DESCRIPTIVE NOTE: 44-49P.

ABSTRACT: PRESENTED IS INFORMATION ON WHO USES REVERSE
OSMOSIS WATER TREATMENT. INFORMATION IS ALSO INCLUDED ON
PROBLEMS WITH THE PROCESS.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76
N8

IRIS ACCESSION NUMBER: EW011432

PUBLICATION DATE: AUG 84

TITLE: CONDUCTING AN OPERATORS' TRAINING AND CERTIFICATION STUDY.

PERSONAL AUTHOR: OHR, CHARLES E.; AND OTHERS

DESCRIPTOR: *ARIZONA; *CERTIFICATION; *INTERVIEWS;
*OPERATOR CERTIFICATION; *PLANNING; *SURVEYS; *TRAINING;
*WATER TREATMENT

DESCRIPTIVE NOTE: 50-53P.

ABSTRACT: REPORTED IS A SURVEY ON WATER SYSTEM OPERATORS. THE SURVEY WAS CONDUCTED TO PROVIDE THE BASIS FOR A NEW STATE CERTIFICATION PROGRAM IN ARIZONA.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76
N8

IRIS ACCESSION NUMBER: EW011433

PUBLICATION DATE: AUG 84

TITLE: IMPROVED METHODS OF DESIGNING FILTER BOXES.

PERSONAL AUTHOR: MONK, ROBERT D. G.

DESCRIPTOR: *DESIGN; *FILTER BOXES; *EQUIPMENT;
*HYDRAULICS; *OPERATIONS (WATER); *PERFORMANCE EVALUATION;
*WATER TREATMENT

DESCRIPTIVE NOTE: 54-59P.

ABSTRACT: DESCRIBED ARE WAYS FOR IMPROVING THE DESIGN OF WATER FILTER BOXES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76
N8

IRIS ACCESSION NUMBER: EW011434

PUBLICATION DATE: AUG 84

TITLE: CONDITIONS CONTRIBUTING TO UNDERGROUND COPPER CORROSION.

PERSONAL AUTHOR: MYERS, JAMES R.; COHEN, ARTHUR

DESCRIPTOR: *COPPER; *CORROSION; *PIPES; *WATER
DISTRIBUTION; *WATER PIPES

DESCRIPTIVE NOTE: 68-71P.

ABSTRACT: THIS ARTICLE DESCRIBES CONDITIONS THAT CONTRIBUTE TO THE CORROSION OF COPPER PIPES.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76

N8

IRIS ACCESSION NUMBER: EW011435

PUBLICATION DATE: AUG 84

TITLE: TEMPERATURE AND IONIC STRENGTH CORRECTIONS TO THE LANCELIER INDEX - REVISITED.

PERSONAL AUTHOR: SHOCK, MICHEAL R.

DESCRIPTOR: *CALCIUM CARBONATE; *CHEMISTRY; *IONIC
STRENGTH; *LANCELIER INDEX; *TEMPERATURE; *WATER; *WATER
TREATMENT

DESCRIPTIVE NOTE: 72-76P.

ABSTRACT: DESCRIBED ARE UPDATED COMPONENTS FOR THIS USEFUL MATHEMATICAL TOOL.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76
N8

IRIS ACCESSION NUMBER: EW011436

PUBLICATION DATE: AUG 84

TITLE: PIPE LOOP SYSTEM AUGMENTS CORROSION STUDIES.

PERSONAL AUTHOR: SINGLEY, J. EDWARD; LEE, TING-YE

DESCRIPTOR: *CORROSION; *EVALUATION; *PIPE LOOP TESTER;
*PIPES; *WATER DISTRIBUTION; *WATER TREATMENT

DESCRIPTIVE NOTE: 76-83P.

ABSTRACT: DESCRIBED IS A PIPE LOOP TESTER FOR DETECTING AND EVALUATING CORROSION.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76
N8

IRIS ACCESSION NUMBER: EW011437

PUBLICATION DATE: AUG 84

TITLE: DETERMINING INTERNAL CORROSION POTENTIAL IN WATER SUPPLY SYSTEMS.

DESCRIPTOR: *CORROSION; *CORROSION CONTROL; *EVALUATION;
*LABORATORY ANALYSIS; *MONITORING; *PLUMBING; *SAMPLING;
*WATER SUPPLY; *WATER DISTRIBUTION; *WATER TREATMENT; *WATER
QUALITY

DESCRIPTIVE NOTE: 83-88P.

ABSTRACT: THIS REPORT PROVIDES GUIDANCE FOR WATER PURVEYORS IN ORGANIZING DATA RELATED TO CORROSION PROBLEMS, SUGGESTS

LABORATORY AND FIELD INVESTIGATIONS, AND OUTLINES A CORROSION CONTROL STRATEGY.

AVAILABILITY: AMERICAN WATER WORKS ASSOCIATION JOURNAL; V76 N8

IRIS ACCESSION NUMBER: EW011438

PUBLICATION DATE: AUG 84

TITLE: 43 MONEY SAVING IDEAS.

PERSONAL AUTHOR: NELSON, BRUCE

DESCRIPTOR: *ADMINISTRATION; *COSTS; *COST REDUCTION;
*MAINTENANCE; *MANAGEMENT; *OPERATIONS (WASTEWATER);
*WASTEWATER COLLECTION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 10-13, 21P.

ABSTRACT: THE LAKE AREA SANITATION DISTRICT OF ALEXANDRIA, MINN. HAS MADE A NUMBER OF PROCESS AND EQUIPMENT MODIFICATIONS THAT SHOULD SAVE OVER \$40,000 A YEAR. MANY OF THEIR MONEY SAVING IDEAS ARE DESCRIBED.

AVAILABILITY: OPERATIONS FORUM; V1 N2

IRIS ACCESSION NUMBER: EW011439

PUBLICATION DATE: AUG 84

TITLE: MILWAUKEE'S CONSERVATION CAMPAIGN.

PERSONAL AUTHOR: MUNSEY, FRANKLIN D.; AND OTHERS

DESCRIPTOR: *COSTS; *COST REDUCTIONS; *ENERGY CONSERVATION;
*MANAGEMENT; *MAINTENANCE; OPERATIONS (WASTEWATER);
*WASTEWATER TREATMENT; *WISCONSIN

DESCRIPTIVE NOTE: 16-21P.

ABSTRACT: DESCRIBED IS AN ENERGY MANAGEMENT PROGRAM AT THE MILWAUKEE, WISCONSIN, WASTEWATER TREATMENT FACILITY TO LOWER ENERGY USE AND COSTS.

AVAILABILITY: OPERATIONS FORUM; V1 N2

IRIS ACCESSION NUMBER: EW011440

PUBLICATION DATE: AUG 84

TITLE: TRAINING AND CERTIFICATION: A UNIFORM PROGRAM FOR RECIPROCITY.

DESCRIPTOR: *ABC; *CERTIFICATION; *OPERATOR TRAINING;
*PERSONNEL; *RECIPROCITY; *WATER TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 24, 26P.

ABSTRACT: DISCUSSED IS RECENT ACTIVITY OF THE ASSOCIATION OF BOARDS OF CERTIFICATION FOR OPERATING PERSONNEL (ABC) REGARDING A UNIFORM PROGRAM FOR RECIPROCITY AMONG STATES FOR WATER AND WASTEWATER TRAINING AND CERTIFICATION.

AVAILABILITY: OPERATIONS FORUM; V1 N2

IRIS ACCESSION NUMBER: EW011441

PUBLICATION DATE: AUG 84

TITLE: TECHNICAL FORUM: CONTROLLING SCUM BY LOWERING SLUDGE AGE.

PERSONAL AUTHOR: SEZGIN, MESUT; KARR, PHILIP

DESCRIPTOR: *ACTIVATED SLUDGE; *MANAGEMENT; *NOCARDIA;
*OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION;
*RESEARCH; *SCUM; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 28-29P.

ABSTRACT: DESCRIBED IS A STUDY TO CONTROL SCUM AT AN ATLANTA, GEORGIA, ACTIVATED SLUDGE PLANT. THE SCUM WAS ELIMINATED BY REDUCING THE SLUDGE AGE.

AVAILABILITY: OPERATIONS FORUM; V1 N2

IRIS ACCESSION NUMBER: EW011449

PUBLICATION DATE: SEP 84

TITLE: HOSPITAL WATER SUPPLIES: IS THE WATER SAFE?

PERSONAL AUTHOR: ANCELE, GUSTAVE J., SR.

DESCRIPTOR: *CONTAMINATION; *DRINKING WATER; *BACKFLOW PREVENTION;
*HOSPITALS; *WATER DISTRIBUTION; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 1, 3P.

ABSTRACT: DISCUSSED ARE SOME PROBLEMS ASSOCIATED WITH BACKFLOW IN HOSPITALS.

AVAILABILITY: BACKFLOW PREVENTION; V1 N3

IRIS ACCESSION NUMBER: EW011450

PUBLICATION DATE: SEP 84

TITLE: DESIGN AND INSTALLATION CRITERIA FOR RP DEVICES.

PERSONAL AUTHOR: BREWER, JOHN; SOLDI, TERRY

DESCRIPTOR: *CONTAMINATION; *DESIGN; *DRINKING WATER;

*EQUIPMENT; *INSTALLATION; *BACKFLOW PREVENTION; *REVERSE FLOW; *REVERSE PRESSURE; *WATER DISTRIBUTION; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 4-5P.

ABSTRACT: DESCRIBED ARE DESIGN AND INSTALLATION CRITERIA FOR REVERSE PRESSURE DEVICES TO PREVENT REVERSE FLOW OF CONTAMINATED MATERIAL INTO POTABLE WATER SUPPLIES.

AVAILABILITY: BACKFLOW PREVENTION; V1 N3

IRIS ACCESSION NUMBER: EW011451

PUBLICATION DATE: SEP 84

TITLE: THE SCIENCE OF DEVELOPING TECHNICAL TRAINING.

PERSONAL AUTHOR: HOLDEN, STANLEY J.

DESCRIPTOR: *EVALUATION; *INSTRUCTION; *NEEDS ANALYSIS; *TECHNICAL TRAINING; *TRAINING

DESCRIPTIVE NOTE: 34-35, 37-39, 41P.

ABSTRACT: PRODUCING EFFECTIVE TECHNICAL TRAINING REQUIRES RESEARCH, SHARP OBSERVATION AND CLEAR THINKING, AS WELL AS DEDICATION TO A SYSTEMATIC PROCEDURE. THIS ARTICLE DESCRIBES NEEDS ANALYSIS, DESIGN OF INSTRUCTION, AND ENSURING EMPLOYEES' COMPETENCE.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V38 N9

IRIS ACCESSION NUMBER: EW011452

PUBLICATION DATE: SEP 84

TITLE: TRAINERS, TAKE YOUR OWN ADVICE.

PERSONAL AUTHOR: CUMMINGS, DAVID L.

DESCRIPTOR: *DIRECTING; *CONTROLLING; *MANAGEMENT; *ORGANIZING; *PLANNING; *PROGRAM DEVELOPMENT; *TRAINING

DESCRIPTIVE NOTE: 42-43, 46P.

ABSTRACT: PRESENTED ARE SKILLS NEEDED BY EFFECTIVE MANAGERS AND TECHNICAL TRAINERS. INCLUDED ARE SKILLS IN PLANNING, ORGANIZING, DIRECTING, AND CONTROLLING.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V38 N9

IRIS ACCESSION NUMBER: EW011453

PUBLICATION DATE: SEP 84

TITLE: FLEXING THE MUSCLES OF TECHNICAL LEADERSHIP.

PERSONAL AUTHOR: BIRNBAUER, HERMAN; TYSON, LYNNE A.

DESCRIPTOR: *LEADERSHIP; *SUPERVISORS; *TRAINING

*MANAGEMENT;

*MANAGERS;

DESCRIPTIVE NOTE: 48-50, 52P.

ABSTRACT: DESCRIBED ARE THE RESULTS OF STUDIES TO TEACH THE SKILLS OF LEADERSHIP TO SUPERVISORS. HIGH-LEVEL PERFORMERS SCAN THE ENVIRONMENT REGULARLY AND TRY TO SPOT PATTERNS, CONSTRAINTS, IRREGULARITIES, MUST'S, MUST NOT'S, AND FEASIBILITIES. HIGH-LEVEL PERFORMERS KNOW THE RESULTS THEY EXPECT. EFFECTIVE LEADERS ALSO ARE ABLE TO ALTER THEIR STYLES.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V38 N9

IRIS ACCESSION NUMBER: EW011454

PUBLICATION DATE: SEP 84

TITLE: BRING YOUR COMPUTER TRAINING MANUALS DOWN TO EARTH.

PERSONAL AUTHOR: BAXTER, PATRICIA

DESCRIPTOR: *COMPUTERS; *DESIGN; *INSTRUCTIONAL MATERIALS; *TRAINING; *TRAINING MANUALS

DESCRIPTIVE NOTE: 54-55, 58-59P.

ABSTRACT: DESCRIBED ARE THE CHARACTERISTICS OF GOOD COMPUTER TRAINING MANUALS.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V38 N9

IRIS ACCESSION NUMBER: EW011455

PUBLICATION DATE: SEP 84

TITLE: IMPROVE YOUR OLD PROJECT'S CHANCES FOR SUCCESS.

PERSONAL AUTHOR: BURKE, W. WARNER; AND OTHERS

DESCRIPTOR: *CHANGE PROCESS; *EVALUATION; *FEEDBACK; *MODELS; *ORGANIZATION DEVELOPMENT; *PLANNING; *SURVEYS

DESCRIPTIVE NOTE: 62, 65-68P.

ABSTRACT: DESCRIBED ARE A NUMBER OF CONDITIONS AND PRACTICES RELATED TO EFFECTIVE ORGANIZATION DEVELOPMENT EFFORTS.

AVAILABILITY: TRAINING AND DEVELOPMENT JOURNAL; V38 N9

IRIS ACCESSION NUMBER: EW011456

PUBLICATION DATE: SEP 84

TITLE: MOBILE WATER TREATMENT RESEARCH FACILITY: HAVE LAB, WILL TRAVEL.

PERSONAL AUTHOR: CLIFFORD, DENNIS; BILIMORIA, MAHEYAR

DESCRIPTOR: *ELECTRODIALYSIS; *FACILITIES; *ION EXCHANGE;
*LABORATORY FACILITIES; *MOBILE FACILITIES; *PILOT PLANTS;
*RESEARCH FACILITIES; *REVERSE OSMOSIS; *WATER TREATMENT

DESCRIPTIVE NOTE: 74-75P.

ABSTRACT: DESCRIBED IS A MOBILE PILOT PLANT AND ANALYTICAL LABORATORY USED BY EPA TO STUDY SEVERAL WATER TREATMENT PROBLEMS.

AVAILABILITY: PUBLIC WORKS; V115 N9

IRIS ACCESSION NUMBER: EW011457

PUBLICATION DATE: SEP 84

TITLE: CREATIVE SOLUTION ENDS FLOODING PROBLEM.

PERSONAL AUTHOR: SCHUSTER, COREY KENNETH

DESCRIPTOR: *FLOODING; *OPERATIONS (WASTEWATER);
*STORMWATER; *SURFACE RUNOFF; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 94-95P.

ABSTRACT: DESCRIBED ARE PROCEDURES TAKEN TO END A FLOODING PROBLEM DUE TO STORMWATER IN PART OF A COMMUNITY IN ILLINOIS.

AVAILABILITY: PUBLIC WORKS; V115 N9

IRIS ACCESSION NUMBER: EW011458

PUBLICATION DATE: SEP 84

TITLE: HOW MUCH WATER CAN YOU SAVE WITH CONSERVATION MEASURES?

PERSONAL AUTHOR: WALSKI, THOMAS M.; AND OTHERS

DESCRIPTOR: *CONSERVATION; *CONSERVATION PRACTICES; *COSTS;
*PERFORMANCE EVALUATION; *RESEARCH; *WATER CONSERVATION;
*WATER SUPPLY; *WATER USE

DESCRIPTIVE NOTE: 96-97P.

ABSTRACT: THIS ARTICLE DESCRIBES A STUDY BY THE ROY F. WESTON CONSULTING FIRM TO PROVIDE ESTIMATES OF THE EFFECTIVENESS OF WATER CONSERVATION MEASURES AND A RESULTING PROCEDURE THAT WAS DEVELOPED.

AVAILABILITY: PUBLIC WORKS; V115 N9

IRIS ACCESSION NUMBER: EW011459

PUBLICATION DATE: SEP 84

TITLE: STORM DRAINAGE DESIGN AND TECHNICAL CRITERIA.

PERSONAL AUTHOR: RUSSO, WILLIAM P.; SERLET, MIKE

DESCRIPTOR: *COLORADO; *DESIGN; *DRAINAGE DESIGNS;
*GUIDELINES; *MANAGEMENT; *MANUALS; *STORM DRAINAGE;
*SURFACE RUNOFF; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 116-19P.

ABSTRACT: DEVELOPMENT OF AN URBAN STORM DRAINAGE CRITERIA MANUAL PROVIDED ENGINEERS WITH COUNTY-WIDE DESIGN GUIDELINES FOR AN AREA IN COLORADO.

AVAILABILITY: PUBLIC WORKS; V115 N9

IRIS ACCESSION NUMBER: EW011460

PUBLICATION DATE: SEP 84

TITLE: USE OF REMOTE WATER METER READING FOR OVERALL SYSTEM IMPROVEMENT.

PERSONAL AUTHOR: SULLIVAN, JOHN P.

DESCRIPTOR: *MAINTENANCE; *MANAGEMENT; *MASSACHUSETTS;
*METERS; REMOTE METERS; *WATER METERS; *WATER SUPPLY; *WATER LOSS; *WATER USE

DESCRIPTIVE NOTE: 120-21P.

ABSTRACT: IMPLEMENTATION OF AN IMPROVED WATER METERING PROGRAM HAS HELPED BOSTON REDUCE UNACCOUNTED-FOR WATER. SOME OF THE CHARACTERISTICS OF THE SYSTEM ARE DESCRIBED.

AVAILABILITY: PUBLIC WORKS; V115 N9

IRIS ACCESSION NUMBER: EW011461

PUBLICATION DATE: SEP 84

TITLE: JUDGING A WASTEWATER TREATMENT FACILITY PLAN FROM DIFFERENT PERSPECTIVES.

PERSONAL AUTHOR: BORUP, M. BRETT; ADAMS, V. DEAN

DESCRIPTOR: *ATTITUDES; *CONSULTANTS; *DESIGN; *FACILITIES;
*OPERATIONS (WASTEWATER); *OWNERS; *SURVEYS; *REGULATORY AGENCIES; *VALUES; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 122-23P.

ABSTRACT: A SURVEY TO IDENTIFY VALUES SHOWS OWNERS, CONSULTANTS, AND REGULATORY AGENCIES EMPHASIZE DIFFERENT ASPECTS OF DESIGN AND OPERATION OF WASTEWATER TREATMENT FACILITY.

AVAILABILITY: PUBLIC WORKS; V115 N9

IRIS ACCESSION NUMBER: EW011463

PUBLICATION DATE: 83

TITLE: TO QUENCH OUR THIRST. THE PRESENT AND FUTURE STATUS OF FRESHWATER RESOURCES OF THE UNITED STATES.

PERSONAL AUTHOR: FRANCKO, DAVID A.; WETZEL, ROBERT G.

DESCRIPTOR: *FRESHWATER; *RESOURCE NEEDS; *TRENDS; *WATER QUALITY; *WATER RESOURCES; *WATER SUPPLY

DESCRIPTIVE NOTE: 148P. PRICE: HARDCOVER \$20.00; PAPER COPY \$8.50

ABSTRACT: DESCRIBED ARE CURRENT WATER PROBLEMS IN THE UNITED STATES, CURRENT WATER RESOURCES, AND FUTURE NEEDS.

AVAILABILITY: THE UNIVERSITY OF MICHIGAN PRESS, UNIVERSITY OF MICHIGAN, ANN ARBOR, MI.

IRIS ACCESSION NUMBER: EW011464

TITLE: HOW TO AVOID MUSCLE STRAINS.

DESCRIPTOR: *AUDIOVISUAL AIDS; *ACCIDENT PREVENTION; *FILMS; *HEALTH; *INSTRUCTIONAL MATERIALS; *MUSCLE STRAINS; *POSTSECONDARY EDUCATION; *SAFETY; *VIDEOTAPE

DESCRIPTIVE NOTE: NOTE: RENTAL FILMS AVAILABLE IN 16MM ONLY. MAY BE PURCHASED IN 16MM OR VIDEOCASSETTE. (SALE PRICE: \$200.00; RENTAL PRICE \$20.00 FIRST DAY).

ABSTRACT: THIS FILM EMPLOYS AN ANIMATED CHARACTER TO ENLIVEN THE STORY OF THE MECHANICS OF MUSCULAR ACTIVITY AND BONE FUNCTIONS. ILLUSTRATED ARE CORRECT AND INCORRECT WAYS OF LIFTING OBJECTS AND THE EFFECTS OF OVERSTRAIN ON THE CEREBRAL COLUMN. CONCLUDING SECTION DEALS WITH THE IMPORTANT LESSON OF HERNIAL DANGERS. THIS FILM, RATED EXCELLENT BY THE AMERICAN MEDICAL ASSOCIATION, IS HIGHLY RECOMMENDED FOR INDUSTRIAL GROUPS, ATHLETIC ORGANIZATIONS, INSURANCE COMPANIES AND SAFETY PROGRAMS OF ALL KINDS.

AVAILABILITY: BRAY STUDIOS INC., 19 KETCHUM STREET, WESTPORT, CT 06880

IRIS ACCESSION NUMBER: EW011465

TITLE: FOOLS RUSH IN.

DESCRIPTOR: *AUDIOVISUAL AIDS; *ACCIDENT PREVENTION;

*CONFINED SPACES; *INSTRUCTIONAL MATERIALS; *POSTSECONDARY EDUCATION; *SAFETY; *VIDEOTAPE

DESCRIPTIVE NOTE: NOTE: 18 MINUTES. AVAILABLE IN SLIDES AND VIDEOTAPE, \$375.00. RENTAL AVAILABLE. LEADERS GUIDE INCLUDED.

ABSTRACT: THIS PROGRAM INFORMS EMPLOYEES OF THE HAZARDS INHERENT IN ANY CONFINED SPACE ENTRY, INSTRUCTS THEM IN CORRECT PROCEDURES, AND MOTIVATES THEM TO FOLLOW THESE PROCEDURES AT ALL TIMES.

AVAILABILITY: INDUSTRIAL TRAINING SYSTEMS CORP., 823 EAST GATE DR., MT. LAUREL, NJ 08054

IRIS ACCESSION NUMBER: EW011466

PUBLICATION DATE: 82

TITLE: TOTAL ENVIRONMENTAL CONTROL: THE ECONOMICS OF CROSS-MEDIA POLLUTION TRANSFERS.

PERSONAL AUTHOR: LOWE, J.; AND OTHERS

DESCRIPTOR: *CROSS-MEDIA TRANSFERS; *COSTS; *ENVIRONMENT; *ECONOMICS; *PLANNING; *POLICIES; *POLLUTION CONTROL; *STANDARDS; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 134P. PRICE: \$21.50

ABSTRACT: THE AUTHORS OF THIS BOOK DESCRIBE THE CONCEPTUAL, EMPIRICAL, AND POLICY FACTORS ASSOCIATED WITH CROSS-MEDIA TRANSFERS. SEVERAL EXAMPLES ARE OFFERED TO ILLUSTRATE THE CONCEPT OF CROSS-MEDIA TRANSFERS, INCLUDING TRANSFERS TO WATER. A COST-BENEFIT ANALYSIS AND AN ALTERNATIVE APPROACH TO EVALUATING CROSS-MEDIA TRANSFERS ARE PRESENTED. COMPREHENSIVE AND PIECEMEAL APPROACHES TO CONTROL AND STANDARDS ARE ALSO DISCUSSED.

AVAILABILITY: PERGAMON PRESS, INC., MAXWELL HOUSE, FAIRVIEW PARK, ELMSFORD, NY 10523

IRIS ACCESSION NUMBER: EW011468

PUBLICATION DATE: JUN 84

TITLE: STORM WATER MANAGEMENT MODEL. USER'S MANUAL, VERSION 3.

PERSONAL AUTHOR: HUBER, W. C.; AND OTHERS

DESCRIPTOR: *MANAGEMENT; *MODELS; *SIMULATIONS; *STORM WATER; *SURFACE RUNOFF; *WASTEWATER COLLECTION; *WATER STORAGE; *WASTEWATER TREATMENT; *USER MANUALS

DESCRIPTIVE NOTE: 532P. PRICE CODE: PC A23/MF A01. ORDER NO.: PB84-198423

ABSTRACT: THE EPA STORM WATER MANAGEMENT MODEL (SWMM) IS A COMPREHENSIVE MATHEMATICAL MODEL FOR SIMULATION OF URBAN

RUNOFF QUANTITY AND QUALITY IN STORM AND COMBINED SEWER SYSTEMS. ALL ASPECTS OF THE URBAN HYDROLOGIC AND QUALITY CYCLES ARE SIMULATED, INCLUDING SURFACE RUNOFF, TRANSPORT THROUGH THE DRAINAGE NETWORK, STORAGE AND TREATMENT, AND RECEIVING WATER EFFECTS. THIS VOLUME APPLIES TO VERSION III OF SWMM AND IS AN UPDATE OF TWO EARLIER USER'S MANUALS ISSUED IN 1971 AND 1975.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011469

PUBLICATION DATE: JAN 84

TITLE: USER'S GUIDE TO THE PHYSICAL HABITAT SIMULATION SYSTEM (PHABSIM).

PERSONAL AUTHOR: MILHOUS, R. T.; AND OTHERS

DESCRIPTOR: ECOLOGY; FISHERIES; *GUIDES; *GUIDELINES; *HABITATS; *MANAGEMENT; *PHYSICAL HABITAT SIMULATION SYSTEM; *SIMULATIONS; *STREAMS; *USER GUIDES; *WATER

DESCRIPTIVE NOTE: 324P. PRICE CODE: PC A14/MF A01. ORDER NO.: PB84-199736

ABSTRACT: THIS MANUAL CONTAINS INSTRUCTIONS AND GUIDELINES FOR USING THE PHYSICAL HABITAT SIMULATION SYSTEM (PHABSIM) DEVELOPED BY THE INSTREAM FLOW AND AQUATIC SYSTEMS GROUP OF THE WESTERN ENERGY AND LAND USE TEAM, U.S. FISH AND WILDLIFE SERVICE. THE PHABSIM SYSTEM SIMULATES THE PHYSICAL HABITAT IN RELATION TO FLOW REGIME AND PHYSICAL STRUCTURE OF A STREAM AND HAS BEEN APPLIED TO WATER MANAGEMENT AND FISHERIES MANAGEMENT. THE MANUAL CONTAINS SPECIFIC DESCRIPTIONS OF THE THEORY AND ORGANIZATION OF THE COMPUTER PROGRAMS MAKING UP PHABSIM. APPENDIX MATERIAL CONTAINS DIRECTIONS FOR THE USE OF PARTICULAR PROGRAMS OR FOR SPECIALIZED APPLICATIONS OF THE PROGRAMS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011470

PUBLICATION DATE: 1 AUG 83

TITLE: MODIFIED STANDARD METHOD FOR THE DETERMINATION OF OZONE RESIDUAL CONCENTRATION BY SPECTROPHOTOMETRY.

PERSONAL AUTHOR: WANG, L. K.; THAYER, A. E.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *LABORATORY PROCEDURES; *OZONE; *SPECTROPHOTOMETRY; *STANDARD METHODS

DESCRIPTIVE NOTE: 25P. PRICE CODE: PC A02/MF A01. ORDER NO.: PB84-204684

ABSTRACT: A NEW SPECTROPHOTOMETRIC METHOD HAS BEEN DEVELOPED FOR RAPID AND ACCURATE DETERMINATION OF OZONE

RESIDUE IN BOTH THE LABORATORY AND THE FIELD. THE NEW METHOD USES IDENTICAL CHEMICAL REAGENTS REQUIRED FOR OZONE RESIDUE ANALYSIS BY STANDARD POTASSIUM IODIDE METHOD (A TITRATION METHOD), BUT NEEDS NO TITRATION STEP ONCE AN OZONE CALIBRATION CURVE IS ESTABLISHED. THE BASIC PRINCIPLE INVOLVES THE LIBERATION OF IODINE FROM A POTASSIUM IODIDE SOLUTION IN THE PRESENCE OF OZONE RESIDUE. AFTER AN ACIDIFICATION STEP FOR FIXATION OF THE OZONE CONTENT IN SOLUTION THE LIBERATED IODINE BY OZONE PRODUCES A YELLOW COLOR. THE DEGREE OF COLOR INTENSITY IS PROPORTIONAL TO THE ORIGINAL OZONE CONCENTRATION IN WATER, AND CAN BE MEASURED SPECTROPHOTOMETRICALLY. THE RANGE OF OZONE CONCENTRATION MEASURABLE IS FROM 0.03 TO 6.0 MG/L. THE NEW METHOD HAS A PRECISION OF + OR - 1% FOR OZONE CONCENTRATIONS OF 3 MG/L OR GREATER.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011471

PUBLICATION DATE: JUN 84

TITLE: ANIMAL WASTE POLLUTION, TREATMENT, AND REGULATIONS. 1977-JUNE, 1984. (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *BIOLOGICAL TREATMENT; *ANIMAL WASTES; *FARMS; *INDUSTRIAL WASTES; *POLLUTION CONTROL; *REGULATIONS; *RESEARCH; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 306P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-869692

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING FARM WASTE WATER TREATMENT, UTILIZATIONS, AND REGULATIONS. FARM WATER QUALITY MANAGEMENT, FEEDLOT POLLUTION CONTROL, REGULATIONS ON FEEDLOT OPERATIONS AND FARM WASTE WATER UTILIZATIONS ARE DISCUSSED. FARM NONPOINT POLLUTION SOURCES AND CONTROL, EFFECTS OF PASTURE RUNOFF, PESTICIDES, AND LIVESTOCK WASTES ON WATER QUALITY, AND RESEARCHES ON THE BIOLOGICAL TREATMENT OF WASTE WATER ARE INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 303 CITATIONS, 145 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011472

PUBLICATION DATE: JUN 84

TITLE: ASBESTOS IN DRINKING WATER. 1977-JUNE, 1984 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRACTS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; *ASBESTOS; BIBLIOGRAPHIES; *DRINKING WATER; *ASBESTOS CEMENT PIPES; *ANALYTICAL TECHNIQUES; *HEALTH; *PIPES; *WATER

DESCRIPTIVE NOTE: 107P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB04-869916

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING ASBESTOS FIBER CONTAMINATED DRINKING WATER. THE ROLE OF ASBESTOS CEMENT PIPES AND FACTORS INVOLVED IN THE RELEASE OF THE FIBERS ARE DISCUSSED. DISTRIBUTION DATA AND HEALTH EFFECTS ARE CONSIDERED. ANALYTICAL METHODS TO QUALITATE AND QUANTITATE ASBESTOS IN DRINKING WATER ARE ALSO DISCUSSED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 98 CITATIONS, 11 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011473

PUBLICATION DATE: 84

TITLE: MANAGEMENT OF UNCONTROLLED HAZARDOUS WASTE SITES - 1984.

DESCRIPTOR: *CASE HISTORIES; *COSTS; *HAZARDOUS MATERIALS; *HAZARDOUS WASTES; *LEACHATE CONTROL; *MANAGEMENT; *PUBLIC PARTICIPATION; *REGULATIONS; *RISK ASSESSMENT; *SAMPLING; *SITE SELECTION; *SAFETY; *SUPERFUND

DESCRIPTIVE NOTE: 540P. ORDER NO.: UHW4. PRICE: SOFT COVER \$45.00

ABSTRACT: THE CONTENTS INCLUDE MORE THAN 125 PAPERS ON ALL ASPECTS OF SUPERFUND ACTIVITIES UTILIZED TO DISCOVER, IDENTIFY, ASSESS, EVALUATE, AND REMEDIATE, MONITOR AND CLOSE A SUPERFUND SITE. THE SUBJECTS ARE: INTERNATIONAL ACTIVITIES; SITE REMEDIATION; STATE PROGRAMS; CONTAMINATED GROUNDWATER CONTROL; POST CLOSURE; RISK ASSESSMENT/DECISION ANALYSIS; ALTERNATIVE TECHNOLOGY; SCREENING TECHNIQUES; PUBLIC PARTICIPATION; SITE DISCOVERY AND ASSESSMENT; LEACHATE CONTROL; SITE SAFETY; COST; AIR MONITORING; ENDANGERMENT ASSESSMENT; CASE HISTORIES; FATE OF CONTAMINANTS; SAMPLING; IN SITU AND ON-SITE TREATMENT; ULTIMATE DISPOSAL; PERSONNEL SAFETY; BARRIER TECHNOLOGY, AND IMPLEMENTATION OF SUPERFUND.

AVAILABILITY: HMCRI, PUBLICATIONS DEPARTMENT, 9300 COLUMBIA BLVD., SILVER SPRING, MD 20910

IRIS ACCESSION NUMBER: EW011474

TITLE: HAZARDOUS WASTES AND ENVIRONMENTAL EMERGENCIES: MANAGEMENT; PREVENTION; CLEANUP; CONTROL.

DESCRIPTOR: *CLEANUP; *EMERGENCIES; *ENVIRONMENTAL IMPACT; *HAZARDOUS WASTES; *HAZARDOUS MATERIALS; *MANAGEMENT; *LIABILITY; *MONITORING; *POLLUTION CONTROL; *SAMPLING; *SPILLS; *WASTE STORAGE; *WASTE TREATMENT

DESCRIPTIVE NOTE: 460P. ORDER NO.: HWEE4

ABSTRACT: THIS PUBLICATION CONTAINS UP-TO-DATE PRACTICAL

ASPECTS OF MANAGEMENT OF HAZARDOUS WASTES AND ENVIRONMENTAL EMERGENCIES. THE CONTENTS INCLUDE SIGNIFICANT PAPERS ON: PERMITTING, LISTING AND DELISTING OF HAZARDOUS MATERIALS, CLOSURE REQUIREMENTS AND TECHNOLOGY, LEGAL AND LIABILITY CONSIDERATIONS, RECOVERY AND RECYCLING, SITE EVALUATION, AERIAL REMOTE SENSING, SAMPLING AND MONITORING, VOLATILE EMISSIONS, TOXICOLOGY AND HEALTH, SPILL CONTROL AND CLEANUP, LANDFILL, TERRESTRIAL STORAGE AND DISPOSAL, CONTAMINATED AQUIFER CONTROL, WATERWAY DECONTAMINATION, SITE REMEDIATION, SITE AND PERSONNEL SAFETY, DISPOSAL MANAGEMENT, IN SITU WASTE TREATMENT, HAZARDOUS WASTE TREATMENT, INCINERATION, FIXATION OF HAZARDOUS WASTES, BARRIERS, TRAINING, AND SUCCESSFUL PUBLIC AWARENESS PROGRAMS.

AVAILABILITY: HMCRI, PUBLICATIONS DEPARTMENT, 9300 COLUMBIA BLVD., SILVER SPRING, MD 20910

IRIS ACCESSION NUMBER: EW011475

TITLE: MANAGEMENT OF UNCONTROLLED HAZARDOUS WASTE SITES - 1983.

DESCRIPTOR: *HAZARDOUS MATERIALS; *MAINTENANCE; *MANAGEMENT; *PUBLIC PARTICIPATION; *SAFETY; *SAMPLING; *WASTE DISPOSAL; *WASTE SITES; *WASTE TREATMENT

DESCRIPTIVE NOTE: 480P. ORDER NO.: UHW3

ABSTRACT: EMPHASIZING PRACTICAL HANDS-ON REMEDIAL EXPERIENCES. THE CONTENTS INCLUDE: INFORMATION ON REMEDIAL RESPONSE ACTIVITIES AT MANY SITES; SUBSURFACE MIGRATION, SAMPLING AND INTERCEPTION; SITE SAFETY; PERSONNEL SAFETY; BARRIER CONSTRUCTION AND MAINTENANCE; SITE LEACHATE AND RUN-OFF TREATMENT; COURT ACTIONS; LEGAL ACTIONS; PUBLIC PARTICIPATION; RISK DECISION ANALYSIS.

AVAILABILITY: HMCRI, PUBLICATIONS DEPARTMENT, 9300 COLUMBIA BLVD., SILVER SPRING, MD 20910

IRIS ACCESSION NUMBER: EW011476

TITLE: MANAGEMENT OF UNCONTROLLED HAZARDOUS WASTE SITES - 1982.

DESCRIPTOR: *CASE HISTORIES; *ENFORCEMENT; *HAZARDOUS WASTES; *MANAGEMENT; *MONITORING; *PUBLIC PARTICIPATION; *RISK ASSESSMENT; *SAFETY; *SAMPLING; *SITE SURVEYS; *TECHNOLOGY; *WASTE SITES

DESCRIPTIVE NOTE: 460P. ORDER NO.: UHW2. PRICE: SOFT COVER \$30.00

ABSTRACT: CONTENTS INCLUDE THE MOST UP-TO-DATE PRACTICAL INFORMATION, TECHNOLOGY AND TECHNIQUES ON SITE SURVEYS, REMOTE IDENTIFICATION, VAPOR SAMPLING AND IDENTIFICATION; SUBSURFACE CONTAINMENT, MOVEMENT, MONITORING, SAMPLING AND INTERCEPTION; SITE AND PERSONNEL SAFETY; BARRIER CONSTRUCTION; RISK ASSESSMENT CONSIDERATIONS; REMEDIAL RESPONSE ACTIVITIES IN 20 LOCATIONS AND DETAILED CASE HISTORIES IN OVER A DOZEN SITES; EFFECTIVE PUBLIC

PARTICIPATION, SITE CONTENTS TREATMENT, LEGAL AND ENFORCEMENT ACTIONS.

AVAILABILITY: HMCRI PUBLICATIONS DEPARTMENT, 9300 COLUMBIA BLVD., SILVER SPRING, MD 20910

IRIS ACCESSION NUMBER: EW011477

TITLE: MANAGEMENT OF UNCONTROLLED HAZARDOUS WASTE SITES - 1981.

DESCRIPTOR: *EPA; *HAZARDOUS WASTES; *LEACHATE CONTROL; *MANAGEMENT; *MATERIAL HANDLING; *REGULATIONS; *SAFETY; *SAMPLING; *WASTE SITES; *WASTE DISPOSAL; *WASTE TREATMENT

DESCRIPTIVE NOTE: 426P. ORDER NO.: UHW1. PRICE: SOFT COVER \$25.00

ABSTRACT: CONTAINS MORE THAN 70 PAPERS PROVIDING SIGNIFICANT INFORMATION ON U.S. EPA REQUIREMENTS FOR SITE FUNDING, USEFUL SITE INVESTIGATION TECHNIQUES AND EQUIPMENT, UNKNOWN MATERIAL HANDLING, SITE AND PERSONNEL SAFETY, DRUM HANDLING, CONSTRUCTION TECHNIQUES, SITE REMEDIAL RESPONSES, LEACHATE CONTROL TECHNIQUES, HAZARDOUS VAPOR SAMPLING TECHNIQUES AND EQUIPMENT, SAMPLING TECHNIQUES, REMOTE SENSING TECHNOLOGY, TREATMENT AND DISPOSAL.

AVAILABILITY: HMCRI PUBLICATIONS DEPARTMENT, 9300 COLUMBIA BLVD., SILVER SPRING, MD 20910

IRIS ACCESSION NUMBER: EW011478

TITLE: HAZARDOUS MATERIAL RISK ASSESSMENT, DISPOSAL AND MANAGEMENT - 1979.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *ECONOMICS; *HAZARDOUS MATERIALS; *MANAGEMENT; *MONITORING; *RISK ASSESSMENT; *SCREENING; *TOXIC SUBSTANCES; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 240P. ORDER NO.: HMR9. PRICE: SOFTCOVER \$15.00

ABSTRACT: RISK AND HAZARDOUS ASSESSMENT OF TOXICANTS AND HAZARDOUS MATERIALS IS EXTENSIVELY DISCUSSED IN THESE PROCEEDINGS. ECONOMICS, INDUSTRIAL IMPACTS, ANALYTICAL MODELS, DISPOSAL OF HAZARDOUS MATERIALS IN THE GROUND AND BY USE OF INCINERATION, MONITORING, UNDERGROUND LEAKAGE, AND UNKNOWN PRODUCT SCREENING TECHNIQUES ARE ALSO DISCUSSED.

AVAILABILITY: HMCRI, PUBLICATIONS DEPARTMENT, 9300 COLUMBIA BLVD., SILVER SPRING, MD 20910

IRIS ACCESSION NUMBER: EW011479

TITLE: CONTROL OF HAZARDOUS MATERIALS SPILLS - 1980.

DESCRIPTOR: *CASE HISTORIES; *CLEANUP; *COSTS; DETECTION; *HAZARDOUS WASTES; *MANAGEMENT; *MONITORING; *SPILLS;

*SAFETY; TECHNOLOGY; WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 500P. ORDER NO.: HMS0. PRICE: SOFT COVER \$20.00

ABSTRACT: THE MORE THAN 90 PAPERS PROVIDE A DETAILED UPDATE OF THE TECHNOLOGY AND MANAGEMENT CONSIDERATIONS AFFECTING OPERATIONS AND COSTS INCLUDING ABANDONED SITE INVESTIGATIONS AND REMEDIAL ACTIONS OF ABANDONED DUMPS; CLEANUP SYSTEMS; CASE HISTORIES; CONTINGENCY PLANNING; PERSONNEL SAFETY; GROUNDWATER CONTAMINATION; DETECTION AND MONITORING; ENVIRONMENTAL EFFECTS; LIABILITY; DATA SYSTEMS; SPILL TRANSPORT; ULTIMATE DISPOSAL; TRAINING; RISK AND MANAGEMENT.

AVAILABILITY: HMCRI, PUBLICATIONS DEPARTMENT, 9300 COLUMBIA BLVD., SILVER SPRING, MD 20910

IRIS ACCESSION NUMBER: EW011480

TITLE: CONTROL OF HAZARDOUS MATERIALS SPILLS - 1978.

DESCRIPTOR: *CASE HISTORIES; *CLEANUP; *EPA; *HAZARDOUS MATERIALS; *REGULATIONS; *SPILLS; *TRAINING; *WASTE DISPOSAL; *WASTE TREATMENT

DESCRIPTIVE NOTE: 458P. ORDER NO.: HMS8. PRICE: SOFT COVER \$10.00; HARD COVER \$20.00

ABSTRACT: THE 80 TECHNICAL PAPERS INCLUDE THE DEVELOPMENTS AND REQUIREMENTS BY EPA IN THE IMPLEMENTATION OF THE HAZARDOUS SUBSTANCES SPILL REGULATIONS, SUCH AS: CASE HISTORIES, FIRE AND EXPLOSION; SPILL EQUIPMENT; TRANSPORTATION; ULTIMATE DISPOSAL; ANALYTICAL MODELS; CONTINGENCY PLANNING AND RESPONSE; LEGAL CONSIDERATIONS; ULTIMATE DISPOSAL-KEPONE; RESIDUE TREATMENT; TRAINING; INFORMATION DATA AND RETRIEVAL.

AVAILABILITY: HMCRI, PUBLICATIONS DEPARTMENT, 9300 COLUMBIA BLVD., SILVER SPRING, MD 20910

IRIS ACCESSION NUMBER: EW011481

TITLE: OIL AND HAZARDOUS MATERIALS SPILLS - 1979.

DESCRIPTOR: *ACCIDENTS; *CLEANUP; *HAZARDOUS MATERIALS; *OIL; *SPILLS; *OIL SPILLS; *SAFETY; *TRAINING; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 206P. ORDER NO.: OHM9. PRICE: SOFT COVER \$20.00

ABSTRACT: MORE THAN 40 PAPERS PRESENT BOTH THE SIMILARITIES AND THE DIFFERENCES BETWEEN OIL AND HAZARDOUS MATERIAL SPILL EVENTS, FOCUSING ON PERSONNEL SAFETY; UNDERGROUND SPILLS; DISPOSAL; PREVENTION; ACCIDENTS AND INCIDENTS; RESPONSE RESOURCES; LIABILITY AND TRAINING; EFFECTIVENESS OF SPILL CLEANUP EQUIPMENT USED ON THE GIANT PEMEX OIL SPILL IN THE GULF OF MEXICO AND ON THE TEXAS AND LOUISIANA COASTLINE.

AVAILABILITY: HMCRI PUBLICATIONS DEPARTMENT, 9300 COLUMBIA

BLVD., SILVER SPRING, MD 20910

IRIS ACCESSION NUMBER: EW011482

TITLE: MUNICIPAL AND INDUSTRIAL SLUDGE UTILIZATION AND DISPOSAL - COMPOSTING, LAND APPLICATION, CO-DISPOSAL, OCEAN DISPOSAL - 1983.

DESCRIPTOR: *COMPOSTING; DESIGN; ECONOMICS; *INDUSTRIAL WASTES; *LAND APPLICATION; *MUNICIPAL WASTES; MANAGEMENT; *OCEAN DISPOSAL; *SLUDGE; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 240P. ORDER NO.: MSL3. PRICE: SOFT COVER \$35.00

ABSTRACT: INCLUDES OVER 35 PRINCIPAL PAPERS ON DESIGN; MANAGEMENT; ECONOMICS; OPERATIONS AND PROBLEM AREAS INVOLVED IN THE MANAGEMENT OF COMPOSTING AND LAND APPLICATION INSTALLATIONS. ALSO PRESENTED ARE PAPERS ON ALTERNATIVE UTILIZATION AND OCEAN DISPOSAL.

AVAILABILITY: HMCRI, PUBLICATIONS DEPARTMENT, 9300 COLUMBIA BLVD., SILVER SPRING, MD 20910

IRIS ACCESSION NUMBER: EW011483

TITLE: COMPOSTING OF MUNICIPAL AND INDUSTRIAL SLUDGES - 1982.

DESCRIPTOR: DESIGN; *COMPOSTING; ECONOMICS; HEALTH; LIABILITY; *INDUSTRIAL WASTES; *MUNICIPAL WASTES; *SLUDGE; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 165P. ORDER NO.: C02. PRICE: SOFT COVER \$20.00

ABSTRACT: CONTENTS INCLUDE 27 PAPERS ON HEALTH, LIABILITY, RISK ASSESSMENT, DESIGN AND OPERATIONS OF PILE, WINDROW AND MECHANICAL ENCLOSED SYSTEMS, MODELING COMPOST SYSTEMS, DEWATERING OF COMPOSTED SLUDGES, ECONOMICS, MARKETING AND UTILIZATION.

AVAILABILITY: HMCRI, PUBLICATIONS DEPARTMENT, 9300 COLUMBIA BLVD., SILVER SPRING, MD 20910

IRIS ACCESSION NUMBER: EW011484

TITLE: COMPOSTING OF MUNICIPAL AND INDUSTRIAL SLUDGES: DESIGN - OPERATIONS - MARKETING - HEALTH RULES AND REGS - 1980.

DESCRIPTOR: *COMPOSTING; HEALTH; *INDUSTRIAL WASTES; *MUNICIPAL WASTES; OPERATIONS; REGULATIONS; *SLUDGE; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 186P. ORDER NO.: C00. PRICE: SOFT COVER \$20.00

ABSTRACT: CONTENTS DISCUSS DESIGN AND OPERATION OF ALL FACETS OF COMPOSTING OF SLUDGES INCLUDING BULKING AGENTS, MATERIALS HANDLING EQUIPMENT, HIGH RATE AERATION, WINDROW AERATION, DEWATERING ASPECTS OF COMPOSTING, ENCLOSED MECHANICAL SYSTEMS, LAWS AND REGULATIONS AFFECTING MARKETING, MARKETING TECHNIQUES, COMPOST UTILIZATION AND VARIOUS HEALTH ISSUES.

AVAILABILITY: HMCRI PUBLICATIONS DEPARTMENT, 9300 COLUMBIA BLVD., SILVER SPRING, MD 20910

IRIS ACCESSION NUMBER: EW011485

TITLE: UNDERSTANDING GROUNDWATER.

DESCRIPTOR: *AUDIOVISUAL AIDS; *FILMSTRIPS; GEOLOGY; *GROUNDWATER; *INSTRUCTIONAL MATERIALS; *MICHIGAN; *WATER RESOURCES; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: NOTE: FILMSTRIP WITH INSTRUCTOR'S MANUAL - 11.5 MINUTES. COST: \$29.95

ABSTRACT: THIS FILMSTRIP PROVIDES A BASIC STUDY OF GROUNDWATER, BEGINNING WITH A BRIEF LOOK AT MICHIGAN'S GEOLOGIC HISTORY AND THE FORMATION OF AQUIFERS. THE CHARACTERISTICS AND OCCURRENCE OF GROUNDWATER ARE EXAMINED, ALONG WITH THE LONG-TERM EFFECTS OF GROUNDWATER POLLUTION AND THE PROBLEMS OF CLEANING UP CONTAMINATED AQUIFERS. EMPHASIS IS PLACED ON THE IMPORTANCE OF PROTECTING THE RESOURCE AND THE ROLE OF CITIZENS, BUSINESS AND INDUSTRY IN THE PREVENTION OF GROUNDWATER CONTAMINATION. THE INSTRUCTOR'S MANUAL INCLUDES A TRANSCRIPT OF THE SCRIPT, A GLOSSARY OF GROUNDWATER TERMINOLOGY, A LIST OF AVAILABLE RELATED FILMS, GRAPHICS DEPICTING HYDROLOGICAL PROCESSES, AND TEACHING ACTIVITIES ON RECHARGING GROUNDWATER AND THE MOVEMENT OF WATER IN SOIL.

AVAILABILITY: MICHIGAN BOOK CENTRAL, BOX 30034, LANSING, MI 48909

IRIS ACCESSION NUMBER: EW011486

TITLE: GROUND WATER: A NON-TECHNICAL GUIDE.

PERSONAL AUTHOR: WILSON, JAMES

DESCRIPTOR: *CONTAMINATION; *GROUNDWATER; *ENVIRONMENTAL EFFECTS; NATURAL RESOURCES; *WATER SUPPLY; *WATER QUALITY; *WATER RESOURCES; *WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 105P. PRICE: \$5.00

ABSTRACT: THIS BOOKLET IS DESIGNED TO CLOSE THE GAP BETWEEN THE SCIENTIFIC AND POPULAR VIEWS OF GROUNDWATER. IN ADDITION TO CORRECTING MANY OF THE FALLACIES ABOUT GROUNDWATER, IT PROVIDES A DETAILED LOOK AT THE WAY IN WHICH THE NATION'S GEOLOGICAL, GEOGRAPHICAL AND CLIMATOLOGICAL DIVERSITY AFFECTS THE QUANTITY AND QUALITY OF GROUNDWATER. NATURAL FACTORS WHICH INFLUENCE GROUNDWATER, SUCH AS NATURAL LEACHING, RIVER INFILTRATION, RAINFALL, SOILS, AND LOCAL

GEOLOGY, ARE EXPLAINED, AS WELL AS HUMAN IMPACTS. THE EFFECTS OF IRRIGATION, FERTILIZERS, PESTICIDES, FEEDLOTS, AND OTHER AGRICULTURAL ACTIVITIES ARE EXAMINED ALONG WITH INDUSTRIAL ACTIVITIES AND THE IMPACTS FROM HUMAN SETTLEMENTS (SEPTIC SYSTEMS, LANDFILLS, MUNICIPAL SEWERAGE SYSTEMS, UNDERGROUND PIPELINES, WATER WELLS, AND HIGHWAY DEICING SALTS).

AVAILABILITY: ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA, 19TH AND PARKWAY, PHILADELPHIA, PA 19103

IRIS ACCESSION NUMBER: EW011487

PUBLICATION DATE: SEP 84

TITLE: COMPUTER PROGRAM ORGANIZES, SIMPLIFIES MANAGEMENT TASKS.

DESCRIPTOR: *COMPUTER APPLICATIONS; *MANAGEMENT; *RECORDS; *UTILITIES; *WASTEWATER TREATMENT; *WATER TREATMENT

DESCRIPTIVE NOTE: 15-16P.

ABSTRACT: DESCRIBED IS THE USE OF A MICROCOMPUTER FOR ORGANIZING AND SIMPLIFYING RECORDKEEPING AND MANAGEMENT.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N10

IRIS ACCESSION NUMBER: EW011488

PUBLICATION DATE: SEP 84

TITLE: MANAGEMENT IN ACTION: TEST YOUR MANAGEMENT PULSE.

PERSONAL AUTHOR: HERSCH, PAUL

DESCRIPTOR: *EVALUATION; *MANAGEMENT; *PERFORMANCE EVALUATION

DESCRIPTIVE NOTE: 29P.

ABSTRACT: THIS ARTICLE PRESENTS A CHECK SHEET FOR EVALUATING MANAGEMENT ACTIVITIES. THE CHECK SHEET IS DIVIDED INTO THREE SECTIONS: (1) MANAGEMENT FUNDAMENTALS; (2) MANAGEMENT PROCEDURES; AND (3) EMPLOYEE-MANAGEMENT RELATIONS.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N10

IRIS ACCESSION NUMBER: EW011489

PUBLICATION DATE: SEP 84

TITLE: AQUACULTURE PROJECT REACHES NEW PLATEAU.

PERSONAL AUTHOR: CONN, WILLIAM M.

DESCRIPTOR: *AQUACULTURE; *DESIGN; *CALIFORNIA; *COSTS;

*FACILITIES; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 36-38P.

ABSTRACT: THE SAN DIEGO AQUACULTURE PROJECT HAS PROGRESSED TO A FULL-SCALE UTILITY OPERATING CONTINUOUSLY AND SUCCESSFULLY. THIS ARTICLE PROVIDES A DESCRIPTION OF THE FACILITIES AND THE OPERATION.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N10

IRIS ACCESSION NUMBER: EW011490

PUBLICATION DATE: SEP 84

TITLE: FILTERS OVERCOME TOUGH CONDITIONS.

PERSONAL AUTHOR: SLENER, JOSEPH F.; GARZONETTI, GARY A.

DESCRIPTOR: *FACILITIES; *FILTRATION; *INDIANA; *OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; *SAND FILTERS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 41, 44-45P.

ABSTRACT: DESCRIBED IS THE USE OF SAND FILTERS TO TRANSFORM SECONDARY EFFLUENT WITH A HIGH BOD TO A FINAL EFFLUENT OF UNDER 10MC/L BOD.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N10

IRIS ACCESSION NUMBER: EW011491

PUBLICATION DATE: SEP 84

TITLE: CLASSROOM TRAINING MAKES BETTER SUPERVISORS.

PERSONAL AUTHOR: WEINBERGER, CARL S.; MOHR, ROBERT T.

DESCRIPTOR: *MARYLAND; *SUPERVISORS; *SUPERVISION; *TRAINING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 46-48P.

ABSTRACT: A WASTEWATER TREATMENT OPERATION WENT OUTSIDE TO SOLVE NEW MANAGEMENT PROBLEMS CREATED BY A PLANT EXPANSION. A UNIVERSITY COURSE PRESENTED CLASSROOM-STYLE BY A CONSULTANT WAS USED TO IMPROVE MANAGEMENT AND SUPERVISION.

AVAILABILITY: WATER ENGINEERING AND MANAGEMENT; V131 N10

IRIS ACCESSION NUMBER: EW011492

PUBLICATION DATE: SEP 84

TITLE: ACHIEVING WASTEWATER COMPLIANCE WITH REDUCED GRANT SUPPORT.

PERSONAL AUTHOR: HEGG, BOB A.; AND OTHERS

DESCRIPTOR: AUTOMATION; *COLORADO; *COMPLIANCE; DESIGN; FEDERAL GRANTS; FEDERAL ROLE; FACILITIES; MAINTENANCE; MONITORING; OPERATIONS (WASTEWATER); *PERFORMANCE EVALUATION; PLANNING; RESEARCH; *RECOMMENDATIONS; TECHNICAL ASSISTANCE; *REGULATIONS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1007-13P.

ABSTRACT: FACED WITH REDUCED GRANT FUNDING PLANTS AND THEIR CONSULTANTS, MUST AND WILL, BECOME ADEPT AT ACHIEVING COMPLIANCE WITH EXISTING FACILITIES. REPORTED ARE THE RESULTS OF A TWO-YEAR STUDY IN COLORADO.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N9

IRIS ACCESSION NUMBER: EW011493

PUBLICATION DATE: SEP 84

TITLE: PHYSICAL ASPECTS OF SURFACE AERATION DESIGN.

PERSONAL AUTHOR: STUKENBERG, JOHN R.

DESCRIPTOR: *AERATION SYSTEMS; *AERATORS; *DESIGN; *GEAR REDUCERS; *EQUIPMENT; MAINTENANCE; *PERFORMANCE EVALUATION; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1014-21P.

ABSTRACT: AN ANALYSIS OF READILY AVAILABLE DATA CAN INDICATE THE DESIGN PARAMETERS MOST IMPORTANT TO THE SERVICE LIFE OF AERATION SYSTEMS. DISCUSSED IS THE SERVICE OF GEAR REDUCERS AT 21 DIFFERENT SURFACE AERATOR INSTALLATIONS AND HOW THE AERATION SYSTEM DESIGN MAY HAVE AFFECTED THEIR MECHANICAL PERFORMANCE.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N9

IRIS ACCESSION NUMBER: EW011494

PUBLICATION DATE: SEP 84

TITLE: INTEGRATING WATER QUALITY AND CONSTRUCTION GRANTS MANAGEMENT.

PERSONAL AUTHOR: ELLIS, FRANKLIN W.; AND OTHERS

DESCRIPTOR: *CONSTRUCTION GRANTS; *COGENT; *DATABASES; *EPA; INFORMATION MANAGEMENT; *MANAGEMENT; *MUNICIPAL DISCHARGES; WATER RESOURCES; WASTEWATER TREATMENT; *WATER QUALITY; *WATER USE

DESCRIPTIVE NOTE: 1022-29P.

ABSTRACT: A NEW EPA INFORMATION TOOL PROVIDES CONSTRUCTION GRANTS PROGRAM MANAGERS WITH CURRENT INFORMATION ON

POTENTIAL WATER QUALITY EFFECTS OF MUNICIPAL DISCHARGES. THIS PAPER SUMMARIZES THE DEVELOPMENT OF THE CONSTRUCTION GRANTS EVALUATION AND NETWORK TRACKING SYSTEM (COGENT).

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N9

IRIS ACCESSION NUMBER: EW011495

PUBLICATION DATE: SEP 84

TITLE: DESIGN AND OPERATION OF AN UPFLOW ANAEROBIC SLUDGE BLANKET REACTOR.

PERSONAL AUTHOR: CHRISTENSEN, D. R.; AND OTHERS

DESCRIPTOR: *ANAEROBIC SLUDGE BLANKET REACTORS; COMPLIANCE; FOOD INDUSTRY; *DESIGN; ENERGY; *EQUIPMENT; *OPERATIONS (WASTEWATER); *POTATO PROCESSING; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 1059-62P.

ABSTRACT: THE ANEROBIC SLUDGE BLANKET REACTOR PROVIDES A FEASIBLE ALTERNATIVE FOR REDUCING CHEMICAL OXYGEN DEMAND AND ALSO PRODUCES METHANE FOR PROCESS ENERGY. THIS PAPER DESCRIBES HOW A LARGE POTATO PROCESSOR ADAPTED REACTOR TECHNOLOGY TO MEET INCREASINGLY STRINGENT DISCHARGE REQUIREMENTS AND OBTAIN ENERGY.

AVAILABILITY: JOURNAL WATER POLLUTION CONTROL FEDERATION; V56 N9

IRIS ACCESSION NUMBER: EW011496

PUBLICATION DATE: SUM 84

TITLE: STUDY REVEALS REASONS WHY WATER PIPES FAIL.

PERSONAL AUTHOR: WALKER, ROBERT P.

DESCRIPTOR: *CANADA; *CAST IRON PIPE; *DUCTILE IRON PIPE; *PERFORMANCE EVALUATION; *PIPES; *PVC PIPE; *WATER PIPES

DESCRIPTIVE NOTE: 1-2, 5P.

ABSTRACT: DISCUSSED IS A STUDY OF WATER PIPES IN CALGARY, CANADA, TO DETERMINE WHY WATER PIPES FAILED. DATA REGARDING CAST IRON, DUCTILE IRON, AND PVC PIPES ARE PRESENTED.

AVAILABILITY: UNI-BELL PVC PIPE NEWS; V7 N1

IRIS ACCESSION NUMBER: EW011497

PUBLICATION DATE: SUM 84

TITLE: MANNING EQUATION FOR PARTIALLY FULL CIRCULAR PIPE.

PERSONAL AUTHOR: LITTLE, ROBERT M.

DESCRIPTOR: *CALCULATOR PROGRAMS; *FLUID FLOW; *MANNING EQUATION; *PIPES; *VELOCITY

DESCRIPTIVE NOTE: 8P.

ABSTRACT: THIS IS A PROGRAM WRITTEN FOR TI PROGRAMMABLE CALCULATORS. THE PROGRAM IS TO EVALUATE THE CROSS SECTIONAL AREA OF A PARTIALLY FULL CIRCULAR PIPE. IT THEN DETERMINES THE VELOCITY AND QUANTITY OF LIQUID FLOWING, BY USE OF THE MANNING EQUATION.

AVAILABILITY: UNI-BELL PVC PIPE NEWS; V7 N1

IRIS ACCESSION NUMBER: EW011498

TITLE: WATER REUSE: PROBLEMS AND SOLUTIONS.

PERSONAL AUTHOR: DEAN, R., ED.; LUND, E., ED.

DESCRIPTOR: *CHEMISTRY; *ECONOMICS; *EPIDEMIOLOGY; *HEALTH; *INSTRUCTIONAL MATERIALS; *MICROBIOLOGY; *MUNICIPALITIES; *MANAGEMENT; *POSTSECONDARY EDUCATION; *SANITATION; *WATER REUSE; *WATER TREATMENT

DESCRIPTIVE NOTE: 264P. ORDER NO.: C012-2080807. PRICE: \$44.00

ABSTRACT: THIS PUBLICATION FOCUSES PRIMARILY ON MUNICIPAL WATER SYSTEMS CONTAINING VARIOUS AMOUNTS OF TREATED WATER. THE BOOK TAKES A MULTIDISCIPLINARY APPROACH TO THE PROBLEMS OF WATER REUSE AND INCLUDES CHAPTERS ON MICROBIOLOGY, CHEMISTRY, SANITARY ENGINEERING, PUBLIC HEALTH, EPIDEMIOLOGY, ECONOMICS, AND PUBLIC OPINION.

AVAILABILITY: ACADEMIC PRESS, INC., (HARCOURT, BRACE, JOVANOVIH, PUBLISHERS), COMMERCIAL SALES, 6277 SEA HARBOR DRIVE, ORLANDO, FL 32821

IRIS ACCESSION NUMBER: EW011499

TITLE: WATER RENOVATION AND REUSE.

PERSONAL AUTHOR: SHUVAL, H., ED.

DESCRIPTOR: *AGRICULTURE; *AFRICA; *ASIA; *HEALTH; *EUROPE; *INDUSTRIES; *INTERNATIONAL ACTIVITIES; *MUNICIPALITIES; *WATER RENOVATION; *WATER REUSE; *WASTEWATER TREATMENT; *WATER RESOURCES

DESCRIPTIVE NOTE: 488P. ORDER NO.: C012-6412502. PRICE: \$56.00

ABSTRACT: THIS MANUAL PROVIDES DETAILED TECHNICAL DISCUSSIONS ON THE ASPECTS OF WATER RENOVATION AND REUSE IN AGRICULTURE, INDUSTRY, AND FOR MUNICIPAL USE. PARTICULAR ATTENTION IS GIVEN TO ADVANCED METHODS OF WASTEWATER TREATMENT. HEALTH PROBLEMS ASSOCIATED WITH REUSE ARE EVALUATED. ALSO INCLUDED IS AN OVERVIEW OF THE TREATMENT PRACTICES CURRENTLY USED IN EUROPE, AFRICA, ASIA, AND THE UNITED STATES DEMONSTRATING THE INTERNATIONAL APPEAL AND

APPLICATION OF SUCH METHODS.

AVAILABILITY: ACADEMIC PRESS, INC., (HARCOURT, BRACE, JOVANOVIH, PUBLISHERS), COMMERCIAL SALES, 6277 SEA HARBOR DRIVE, ORLANDO, FL 32821

IRIS ACCESSION NUMBER: EW011500

TITLE: WATER AND SANITATION: ECONOMIC AND SOCIOLOGICAL PERSPECTIVES.

PERSONAL AUTHOR: BOURNE, P., ED.

DESCRIPTOR: *COMMUNITY PARTICIPATION; *DISEASE; *ECONOMICS; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *POSTSECONDARY EDUCATION; *SANITATION; *WASTEWATER TREATMENT; *WATER QUALITY; *WATER TREATMENT; *WATER RESOURCES

DESCRIPTIVE NOTE: 304P. ORDER NO.: C012-1195803. PRICE: \$45.00

ABSTRACT: THIS PUBLICATION PROVIDES A BALANCED PERSPECTIVE ON WATER AND SANITATION TAKING INTO ACCOUNT ALL OF THE VARIABLES. CONTENTS INCLUDE SECTIONS ON THE ROLE OF WATER IN ECONOMIC DEVELOPMENT, SANITATION, INFECTIONS RELATED TO WATER AND EXCRETA, AND COMMUNITY PARTICIPATION.

AVAILABILITY: ACADEMIC PRESS, INC., (HARCOURT, BRACE, JOVANOVIH, PUBLISHERS), COMMERCIAL SALES, 6277 SEA HARBOR DRIVE, ORLANDO, FL 32821

IRIS ACCESSION NUMBER: EW011501

TITLE: PRINCIPLES OF WATER QUALITY.

PERSONAL AUTHOR: WAITE, T., ED.

DESCRIPTOR: *ENVIRONMENTAL EFFECTS; *INSTRUCTIONAL MATERIALS; *MANAGEMENT; *METALS; *POLLUTION; *TOXIC SUBSTANCES; *WATER POLLUTION CONTROL; *WATER QUALITY; *WATER TREATMENT

DESCRIPTIVE NOTE: 304P. ORDER NO.: C012-7308601. PRICE: \$45.00

ABSTRACT: THIS PUBLICATION PROVIDES COVERAGE OF CONTAMINANTS THAT ARE ACTUAL POLLUTANTS AND WHICH ARE INERT ADDITIVES. IN ADDITION TO DESCRIBING THE CHEMICAL AND MICROBIOLOGICAL PROCESS OPERATIVE ON CONSTITUENTS IN WATER, THIS VOLUME INTRODUCES ENGINEERING APPROACHES FOR WATER QUALITY IMPROVEMENT OTHER THAN SEWAGE TREATMENT. TOPICS INCLUDE: NATURAL ENVIRONMENT PROCESSES, TOXIC METALS AS FACTORS IN WATER QUALITY, AND WATER QUALITY STANDARDS AND MANAGEMENT APPROACHES.

AVAILABILITY: ACADEMIC PRESS, INC., (HARCOURT, BRACE, JOVANOVIH, PUBLISHERS), COMMERCIAL SALES, 6277 SEA HARBOR DRIVE, ORLANDO, FL 32821

IRIS ACCESSION NUMBER: EW011502

TITLE: MODELING WATER DEMANDS.

PERSONAL AUTHOR: KINDLER, J., ED.; RUSSELL, C., ED.

DESCRIPTOR: *AGRICULTURE; *CASE STUDIES; *INDUSTRIES;
*MANAGEMENT; *MODELS; *MUNICIPALITIES; *WATER DEMANDS;
*WATER RESOURCES

DESCRIPTIVE NOTE: 262P. ORDER NO.: C012-4073808. PRICE:
\$28.00

ABSTRACT: THIS PUBLICATION PROVIDES DETAILED APPROACHES FOR THE EFFICIENT PLANNING AND MANAGEMENT OF WATER RESOURCES. CASE STUDIES FROM THE COOPERATIVE PROGRAM ON WATER DEMANDS OF THE INSTITUTE OF APPLIED SYSTEMS ANALYSIS DEMONSTRATE THE DEVELOPMENT AND IMPLEMENTATION AS WELL AS FOLLOW THE PROGRESS OF THE PROGRAMS INSTITUTED IN RESPONSE TO THE NEEDS OF SEVERAL COUNTRIES. TOPICS COVERED INCLUDE INDUSTRIAL, AGRICULTURAL, AND MUNICIPAL WATER DEMANDS IN ADDITION TO PROVIDING A METHODOLOGICAL FRAMEWORK AND A PERSPECTIVE ON WATER DEMAND MODELING.

AVAILABILITY: ACADEMIC PRESS, INC., (HARCOURT, BRACE, JOVANOVIH, PUBLISHERS), COMMERCIAL SALES, 6277 SEA HARBOR DRIVE, ORLANDO, FL 32821

IRIS ACCESSION NUMBER: EW011503

TITLE: ENVIRONMENTAL IMPACT ASSESSMENT: PRINCIPLES AND APPLICATIONS.

PERSONAL AUTHOR: ERICKSON, P., ED.

DESCRIPTOR: *ASSESSMENT; *ENVIRONMENTAL IMPACT ASSESSMENT;
*ENVIRONMENTAL IMPACTS; *ENVIRONMENT

DESCRIPTIVE NOTE: 389P. ORDER NO.: C012-2415507. PRICE:
\$45.00

ABSTRACT: THIS BOOK PROVIDES A HOLISTIC APPROACH TO ENVIRONMENTAL ASSESSMENT AND IMPACT PREDICTION, NOT ONLY IN THE DISCIPLINES SURVEYED BUT IN ITS PHILOSOPHICAL FOUNDATIONS. PRACTICAL SUGGESTIONS ARE PROVIDED FOR THE DESIGN AND CONDUCT OF THE ASSESSMENT EFFORT.

AVAILABILITY: ACADEMIC PRESS, INC., (HARCOURT, BRACE, JOVANOVIH, PUBLISHERS), COMMERCIAL SALES, 6277 SEA HARBOR DRIVE, ORLANDO, FL 32821

IRIS ACCESSION NUMBER: EW011504

TITLE: ENVIRONMENTAL HEALTH.

PERSONAL AUTHOR: PURDOM, E.

DESCRIPTOR: *AIR; *DISEASE; *ENVIRONMENTAL HEALTH; *FOOD;
*HEALTH; *NOISE; *SANITATION; *SOLID WASTES; *WATER

DESCRIPTIVE NOTE: 714P. ORDER NO.: C012-5678606. PRICE:
\$37.50

ABSTRACT: THIS TEXT EXPLORES THE NATURE OF HUMAN INTERVENTION WITH THE ENVIRONMENT AS IT RELATES TO HEALTH. EACH CONTRIBUTOR HAS PROVIDED A COMPREHENSIVE OUTLINE AND TABLE OF CONTENTS FOR EACH PROGRAM AREA. CHAPTERS ARE CATEGORIZED BY MODE, FORM OF THE HAZARD, AND THE PLACE WHERE THE HAZARD IS ENCOUNTERED.

AVAILABILITY: ACADEMIC PRESS, INC., (HARCOURT, BRACE, JOVANOVIH, PUBLISHERS), COMMERCIAL SALES, 6277 SEA HARBOR DRIVE, ORLANDO, FL 32821

IRIS ACCESSION NUMBER: EW011505

TITLE: ECOTOXICOLOGY: THE STUDY OF POLLUTANTS IN ECOSYSTEMS.

PERSONAL AUTHOR: MORIARTY, E.

DESCRIPTOR: *COMMUNITIES; *ECOTOXICOLOGY; *ENVIRONMENT;
*ENVIRONMENTAL IMPACTS; *GENETICS; *MONITORING; *POLLUTANTS;
*POPULATIONS; *TOXICOLOGY

DESCRIPTIVE NOTE: 244P. ORDER NO.: C012-5067607. PRICE:
\$32.50

ABSTRACT: THE DEVELOPMENT OF THE SCIENCE OF ECOTOXICOLOGY HAS HAD TREMENDOUS IMPACT UPON INDUSTRY AND ENVIRONMENTAL SCIENCE. IN THIS VOLUME, A SERIES OF ESSAYS SYNTHESIZE THE CURRENT KNOWLEDGE AND PROVIDES AN OVERVIEW OF THE RANGE OF PROBLEMS EFFECTING THE ENVIRONMENT. THE BOOK FALLS INTO TWO MAJOR SECTIONS. THE FIRST DISCUSSES ASPECTS OF POPULATION, COMMUNITIES, AND GENETICS, AND POINTS OUT THE IMPLICATIONS FOR ECOTOXICOLOGY. THE SECOND SECTION DISCUSSES TOXICOLOGY, AND THE PREDICTION AND MONITORING OF EFFECTS. NUMEROUS TABLES AND FIGURES SUPPORT THE DATA.

AVAILABILITY: ACADEMIC PRESS, INC., (HARCOURT, BRACE, JOVANOVIH, PUBLISHERS), COMMERCIAL SALES, 6277 SEA HARBOR DRIVE, ORLANDO, FL 32821

IRIS ACCESSION NUMBER: EW011506

PUBLICATION DATE: JUL 84

TITLE: ORGANIC SOLVENT RECOVERY AND RECLAMATION. JUNE, 1976 - JULY, 1983 (CITATIONS FROM THE ENERGY DATA BASE).

DESCRIPTOR: AIR POLLUTION CONTROL; *ANNOTATED
BIBLIOGRAPHIES; BIBLIOGRAPHIES; *ENERGY; *INDUSTRIAL
PROCESSES; INDUSTRIAL WASTES; *ORGANIC CHEMICALS; *ORGANIC
SOLVENTS; *RESEARCH REPORTS; *SOLVENT RECOVERY; WATER
POLLUTION CONTROL

DESCRIPTIVE NOTE: 352P. PRICE CODE: PC N01/MF N01. ORDER
NO.: PBB4-879732

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING

EXTRACTION, RECOVERY AND RECLAMATION OF SOLVENTS AND COMPONENTS OF SOLVENTS WHICH ARE UTILIZED IN VARIOUS MINERAL, MANUFACTURING, PROCESSING AND REPROCESSING INDUSTRIES. ENERGY CONVERSION APPLICATIONS, ENERGY EFFICIENT TECHNIQUES, AND AIR AND WATER POLLUTION CONTROL ARE CONSIDERED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 286 CITATIONS, NONE OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011507

PUBLICATION DATE: JUL 84

TITLE: ORGANIC SOLVENT RECOVERY AND RECLAMATION. AUGUST, 1983-JULY, 1984 (CITATIONS FROM THE ENERGY DATA BASE).

DESCRIPTOR: AIR POLLUTION CONTROL; *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *ENERGY; *INDUSTRIAL PROCESSES; *INDUSTRIAL WASTES; *ORGANIC CHEMICALS; *ORGANIC SOLVENTS; *RESEARCH; *SOLVENT RECOVERY; WATER POLLUTION CONTROL

DESCRIPTIVE NOTE: 94P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-870740

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING EXTRACTION, RECOVERY AND RECLAMATION OF SOLVENTS AND COMPONENTS OF SOLVENTS WHICH ARE UTILIZED IN VARIOUS MINERAL, MANUFACTURING, PROCESSING AND REPROCESSING INDUSTRIES. ENERGY CONVERSION APPLICATIONS, ENERGY EFFICIENT TECHNIQUES, AND AIR AND WATER POLLUTION CONTROL ARE CONSIDERED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 73 CITATIONS, ALL OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011508

PUBLICATION DATE: JUL 84

TITLE: AQUATIC BACTERIA: THEIR INFLUENCE ON THE AQUATIC ENVIRONMENT. 1977-JUNE, 1984 (CITATIONS FROM THE SELECTED WATER RESOURCES ABSTRA

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *BIODEGRADATION; *AQUATIC BACTERIA; *AQUATIC ENVIRONMENTS; *BACTERIA; *MONITORING; *NITROGEN; *RESEARCH

DESCRIPTIVE NOTE: 142P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-870542

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING AQUATIC BACTERIA AND THEIR INFLUENCE ON THE AQUATIC ENVIRONMENT. SAPROPHYTIC AND PATHOGENIC BACTERIA, INCLUDING COLIFORMS, ARE CONSIDERED. THE ROLE OF BACTERIA IN N2

FIXATION, THE BIODEGRADATION OF HERBICIDES, INCLUDING 2-4D, AND THE BIODEGRADATION OF CRUDE OIL ARE DISCUSSED. METHODS TO MONITOR BACTERIAL COUNTS ARE ALSO INCLUDED. (THIS UPDATED BIBLIOGRAPHY CONTAINS 130 CITATIONS, 12 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011509

PUBLICATION DATE: JUL 84

TITLE: PULP AND PAPER MILL EFFLUENTS: TOXICITY TO HUMANS. 1976-JULY, 1984 (CITATIONS FROM THE PAPER AND BOARD, PRINTING, AND PACKAGING I

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *EFFLUENTS; HEALTH; *INDUSTRIAL WASTES; *PAPER MILLS; *PULP MILLS; *PUBLIC HEALTH; *RESEARCH; *TOXICITY; *WASTE TREATMENT; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 93P. PRICE CODE: PC N01/MF N01. ORDER NO.: PB84-870815

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING THE HAZARDS OF TOXIC PULPING AND PAPERMAKING EFFLUENTS TO PEOPLE WITHIN THE PLANTS AS WELL AS OUTSIDE. BIOMONITORING STUDIES, BIOASSAY PERFORMANCE AND RELIABILITY, COST FACTORS OF REDUCING TOXICITY, AND EFFECTS OF REDUCING TOXICITY ON BIOLOGICAL TREATMENT OF WASTES ARE DISCUSSED. EVALUATION OF TOXICITY AND MUTAGENICITY OF EFFLUENTS WITHIN THE PLANTS COMPARED TO THAT WHICH IS DISCHARGED TO THE OUTSIDE ENVIRONMENT IS INCLUDED. TOXICITY OF PULPING EFFLUENTS TO FISH AND WATER VEGETATION IS COVERED IN ANOTHER BIBLIOGRAPHY. (THIS UPDATED BIBLIOGRAPHY CONTAINS 114 CITATIONS, 10 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011510

PUBLICATION DATE: 84

TITLE: RECOMMENDED SPECIFICATIONS FOR SEWER COLLECTION SYSTEM REHABILITATION.

DESCRIPTOR: *GUIDELINES; *INSPECTION; *MAINTENANCE; *REHABILITATION; *SEWERS; *WASTEWATER COLLECTION

DESCRIPTIVE NOTE: 50P. PRICE: \$10.00 PREPAID ONLY.

ABSTRACT: THIS BOOKLET HAS BEEN DESIGNED TO AID THE ENGINEER, CONSULTANT AND OTHER MUNICIPAL OFFICIALS PREPARE DOCUMENTS NEEDED FOR REHABILITATION WORK. INFORMATION IS GIVEN ON DEFINITIONS, CONTRACT RESPONSIBILITIES, TECHNICAL SPECIFICATIONS, AND MEASUREMENTS FOR PAYMENT. OTHER SECTIONS COVER CLEANING, FLOW CONTROL, TELEVISION INSPECTION, JOINT

TESTING AND SEALING, MANHOLES, SLIPLINING, AND RELATED ASPECTS.

AVAILABILITY: NATIONAL ASSOCIATION OF SEWER SERVICE COMPANIES, 110 E. MORSE BLVD., ROOM 3, WINTER PARK, FL 32789

IRIS ACCESSION NUMBER: EW011513

PUBLICATION DATE: APR 84

TITLE: MODELING THE TRANSPORT, SPECIATION, AND FATE OF HEAVY METALS IN AQUATIC SYSTEMS. PROJECT SUMMARY.

PERSONAL AUTHOR: FELMY, A. R.; AND OTHERS

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *AQUATIC ENVIRONMENT; *CHEMICAL REACTIONS; *EXAMS; *HEAVY METALS; *MODELS; *METALS; *MEXAMS; *MINTEQ; *RESEARCH; *SIMULATIONS; *WATER QUALITY

DESCRIPTIVE NOTE: 4P. FOR COMPLETE REPORT: ORDER NO. PB84-157148; COST: \$11.50.

ABSTRACT: THE MODELING TECHNIQUE DEVELOPED IN THIS RESEARCH STUDY PERMITS THE USER TO EXAMINE THE EQUILIBRIUM SPECIATION OF HEAVY METALS ALONG WITH TRANSPORT AND FATE IN VARIOUS AQUATIC SYSTEMS. MODELS INCLUDED ARE MEXAMS, MINTEQ, AND EXAMS. THE MODELING TECHNIQUE CAN BE USED TO RELATE METALS DISCHARGE DATA AND AQUATIC CHEMISTRY DATA TO OBSERVED OR EXPECTED RESULTS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011514

PUBLICATION DATE: DEC 83

TITLE: ECOLOGICAL IMPACT OF INTEGRATED CHEMICAL AND BIOLOGICAL AQUATIC WEED CONTROL. PROJECT SUMMARY.

PERSONAL AUTHOR: SHIREMAN, J. V.; AND OTHERS

DESCRIPTOR: *AQUATIC WEEDS; *BIOLOGICAL CONTROL; *ECOLOGY; *ENVIRONMENTAL EFFECTS; *CHEMICAL CONTROL; *HERBICIDES; *MANAGEMENT; *RESEARCH; *RESEARCH NEEDS; *WEED CONTROL; *WATER QUALITY

DESCRIPTIVE NOTE: 4P. FOR COMPLETE REPORT: ORDER NO. PB83-264242; COST: \$26.50.

ABSTRACT: THIS REPORT SUMMARIZES THE RESULTS OF A FOUR-YEAR STUDY OF THE ECOLOGICAL IMPACTS OF CHEMICAL, BIOLOGICAL, AND INTEGRATED METHODS OF AQUATIC WEED CONTROL. IN ADDITION, RESEARCH NEEDS FOR EVALUATION OF EFFECTS OF WEED CONTROL ON AQUATIC SYSTEMS ARE IDENTIFIED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011515

PUBLICATION DATE: MAR 84

TITLE: CONTROL OF ASBESTOS FIBER LOSS FROM ASBESTOS-CEMENT WATERMAIN. PROJECT SUMMARY.

DESCRIPTOR: *ASBESTOS-CEMENT WATERMAINS; *ASBESTOS; *LININGS; *MAINTENANCE; *PUBLIC HEALTH; *PERFORMANCE EVALUATION; *REHABILITATION; *PIPES; *WATER DISTRIBUTION; *WATER PIPES; WISCONSIN

DESCRIPTIVE NOTE: 4P. FOR COMPLETE REPORT: ORDER NO. PB84-148733; COST: \$10.00.

ABSTRACT: THIS PROJECT EVALUATED THREE PROCEDURES FOR ELIMINATING OR MINIMIZING THE NUMBER OF ASBESTOS FIBERS BEING RELEASED FROM WATERMAINS IN A WISCONSIN WATER SYSTEM. THREE TECHNIQUES WERE STUDIED. THE MOST EFFECTIVE WAS IN SITU CEMENT MORTAR LINING.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011516

PUBLICATION DATE: MAR 84

TITLE: A MOBILE DRINKING WATER TREATMENT RESEARCH FACILITY FOR INORGANIC CONTAMINANTS REMOVAL: DESIGN, CONSTRUCTION, AND OPERATION. PROJ

PERSONAL AUTHOR: CLIFFORD, DENNIS; BILIMORIA, MAHEYAR

DESCRIPTOR: *CHROMIUM; *DRINKING WATER; *FACILITIES; *FLUORIDES; *LABORATORIES; *NITRATES; *OPERATIONS (WATER); *PERFORMANCE EVALUATION; *PILOT PLANTS; *WATER TREATMENT

DESCRIPTIVE NOTE: 6P. FOR COMPLETE REPORT: ORDER NO. PB84-145507; PRICE: \$10.00.

ABSTRACT: A MOBILE INORGANICS REMOVAL RESEARCH FACILITY CONSISTING OF A PILOT PLANT AND ANALYTICAL LABORATORY WAS DESIGNED AND CONSTRUCTED AND HAS BEEN OPERATED FOR THREE YEARS. SEVERAL PROCESSES HAVE BEEN STUDIED FOR THE REMOVAL OF FLUORIDE, NITRATE, AND CHROMIUM. PLANS CALL FOR THE STUDY OF OTHER MATERIALS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011517

PUBLICATION DATE: APR 83

TITLE: EFFECTS OF LIVESTOCK PASTURING ON NONPOINT SURFACE RUNOFF. PROJECT SUMMARY.

PERSONAL AUTHOR: WHITE, RICHARD K.; AND OTHERS

DESCRIPTOR: *AGRICULTURE; *LIVESTOCK; *NONPOINT SURFACE RUNOFF; *PASTURES; *RESEARCH; *SURFACE RUNOFF; *WATER QUALITY

DESCRIPTIVE NOTE: 6P. FOR COMPLETE REPORT: ORDER NO. PB83-165456; PRICE: \$11.50.

ABSTRACT: THIS STUDY WAS CONDUCTED TO EVALUATE THE EFFECTS OF LIVESTOCK PASTURING IN HUMID REGIONS OF THE UNITED STATES ON THE QUALITY OF NONPOINT SURFACE RUNOFF. RESULTS ARE REPORTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011518

PUBLICATION DATE: JAN 84

TITLE: CONVERSION OF SEWAGE SLUDGE TO OIL BY HYDROLIQUEFACTION. PROJECT SUMMARY.

PERSONAL AUTHOR: KRANICH, WILMER L.; ERALP, ATAL E.

DESCRIPTOR: *ALTERNATIVE TECHNOLOGY; *ENERGY; *HYDROLIQUEFACTION; *OIL; *RECYCLING; *RESEARCH; *SEWAGE; *SLUDGE; WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 2P. FOR COMPLETE REPORT: ORDER NO. PB84-133763; PRICE: \$3.50.

ABSTRACT: THIS STUDY WAS UNDERTAKEN TO DETERMINE THE FEASIBILITY OF CONVERTING MUNICIPAL WASTEWATER SLUDGE INTO OIL UNDER HYDROGEN PRESSURE. BASED ON THESE RESULTS FURTHER DEVELOPMENT WORK ON HYDROLIQUEFACTION OF SEWAGE SLUDGE IS NOT RECOMMENDED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011519

PUBLICATION DATE: FEB 84

TITLE: PILOT PLANT PROJECT FOR REMOVING ORGANIC SUBSTANCES FROM DRINKING WATER. PROJECT SUMMARY.

PERSONAL AUTHOR: WOOD, PAUL R.; AND OTHERS

DESCRIPTOR: *ACTIVATED CARBON; *BIOLOGICAL ACTIVATED CARBON; *DISINFECTION; *GROUNDWATER; *FLORIDA; *OPERATIONS (WATER); *OZONE; PILOT PLANTS; *PERFORMANCE EVALUATION; *TRIHALOMETHANES; *WATER TREATMENT

DESCRIPTIVE NOTE: 4P. FOR COMPLETE REPORT: ORDER NO. PB84-128685; PRICE: \$29.50

ABSTRACT: A STUDY WAS CONDUCTED TO EVALUATE THE EUROPEAN PRACTICE OF OZONATING WATER TO MODIFY NATURALLY OCCURRING ORGANICS AND THEN USING BIOLOGICAL ACTIVATED CARBON (BAC)

ADSORPTION TO REMOVE TRIHALOMETHONE (THM) PRECURSORS. A PILOT PLANT WAS DESIGNED, CONSTRUCTED, AND OPERATED TO EVALUATE THIS PROCESS ON GROUNDWATER IN MIAMI, FLORIDA.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011520

PUBLICATION DATE: JAN 84

TITLE: ALTERNATIVE WATER DISINFECTION SCHEMES FOR REDUCED TRIHALOMETHANE FORMATION VOLUME II. ALGAE AS PRECURSORS FOR TRIHALOMETHANES IN

PERSONAL AUTHOR: BRILEY, KATHRYN F.; AND OTHERS

DESCRIPTOR: *ALGAE; *DISINFECTION; *CHLORINE; *OPERATIONS (WATER); *PERFORMANCE EVALUATION; *RECOMMENDATIONS; *RESEARCH; *TRIHALOMETHANE; *WATER TREATMENT

DESCRIPTIVE NOTE: 5P. FOR COMPLETE REPORT: ORDER NO. PB84-129006; PRICE: \$11.50.

ABSTRACT: THREE SPECIES OF ALGAE WERE INVESTIGATED FOR THEIR TRIHALOMETHANE (THM) FORMATION POTENTIAL IN WATER TREATED WITH CHLORINE. CORRELATION OF THE ALGAE GROWTH PERIOD AND THM PRODUCTION WAS OBSERVED. MONITORING AND CONTROL OF ALGAE SHOULD BE UNDERTAKEN. CHLORINATION SHOULD BE AFTER COAGULATION AND FILTRATION PROCESSES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011522

PUBLICATION DATE: APR 84

TITLE: WATER SUPPLY SIMULATION MODEL VOLUMES I, II, AND III. PROJECT SUMMARY.

PERSONAL AUTHOR: CLARK, ROBERT M.; AND OTHERS

DESCRIPTOR: *COSTS; *COMPUTER APPLICATIONS; *ECONOMICS; *EVALUATION; *FACILITIES; *MODELS; *OPERATIONS (WATER); *PHYSICAL CHARACTERISTICS; *SIMULATIONS; *WATER DISTRIBUTION; *WATER SUPPLY

DESCRIPTIVE NOTE: 4P. FOR COMPLETE REPORT: VOLUME I ORDER NO. PB84-143916, PRICE: \$11.50; VOLUME II ORDER NO. PB84-143924, PRICE: \$13.00; VOLUME III ORDER NO. PB84-143932, PRICE: \$13.00.

ABSTRACT: THIS THREE-VOLUME REPORT DESCRIBES THE DEVELOPMENT OF A WATER SUPPLY SYSTEM OF COMPUTER PROGRAMS THAT ALLOWS FOR A SYSTEMATIC EVALUATION OF THE PHYSICAL AND ECONOMIC CHARACTERISTICS OF A WATER DISTRIBUTION SYSTEM IN A SPATIAL FRAMEWORK. VOLUME 1 OF THE STUDY DESCRIBES THE DEVELOPMENT OF THE MODEL AND ITS UNDERLYING PRINCIPLES. VOLUME 2 DISCUSSES SOME OF THE ENGINEERING AND ECONOMIC

CONCEPTS USED IN DEVELOPING THE MODEL. VOLUME 3 IS A USERS MANUAL.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011523

PUBLICATION DATE: FEB 84

TITLE: EFFECTS OF USING SEWAGE SLUDGE ON AGRICULTURAL AND DISTURBED LANDS. PROJECT SUMMARY.

PERSONAL AUTHOR: HINESLY, T. D.; AND OTHERS

DESCRIPTOR: *AGRICULTURE; *CORN; *ENVIRONMENTAL EFFECTS; *ILLINOIS; *PHEASANTS; *RESEARCH; *SWINE; *SLUDGE; *SOIL; *WASTE DISPOSAL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 7P. FOR COMPLETE REPORT: ORDER NO. PB84-117142; PRICE \$43.00.

ABSTRACT: A SERIES OF STUDIES WAS CONDUCTED TO DETERMINE THE EFFECTS OF USING SEWAGE SLUDGE ON AGRICULTURAL AND DISTURBED LANDS. PLOTS WERE TREATED WITH DIGESTED SEWAGE SLUDGE FROM CHICAGO. RESULTS OF THE STUDY ON CORN, SOIL, PHEASANTS, AND SWINE ARE REPORTED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011524

PUBLICATION DATE: JAN 84

TITLE: THE EVALUATION OF THE MUTAGENICITY OF MUNICIPAL SEWAGE SLUDGE. PROJECT SUMMARY.

PERSONAL AUTHOR: HOPKE, PHILIP K.; PLEWA, MICHAEL J.

DESCRIPTOR: *DOMESTIC WASTES; *GENETICS; *MUNICIPAL WASTES; *MUTAGENS; *PUBLIC HEALTH; *RESEARCH; *SEWAGE; *SLUDGE; *WASTE DISPOSAL

DESCRIPTIVE NOTE: 2P. FOR COMPLETE REPORT: ORDER NO. PB83-264077; PRICE \$10.00.

ABSTRACT: SAMPLES OF FIVE MUNICIPAL SEWAGE SLUDGES FROM ILLINOIS CITIES WERE SUBJECTED TO A TESTING PROGRAM TO DETERMINE THE PRESENCE OR ABSENCE OF MUTAGENIC ACTIVITY. SLUDGES FROM PRIMARILY DOMESTIC SEWAGE DID NOT CONTAIN MUTAGENS. SLUDGES FROM SOME MUNICIPAL SOURCES DO CONTAIN MUTAGENIC ACTIVITY.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011527

PUBLICATION DATE: JULY 84

TITLE: NEW TECHNOLOGIES IN SLUDGE DEWATERING.

PERSONAL AUTHOR: SMITH, J. E.; AND OTHERS

DESCRIPTOR: *CASE STUDIES; *DEWATERING; *OPERATIONS (WASTEWATER); *SLUDGE; *TECHNOLOGY; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 11P. PRICE CODE: PC A02/MF A01. ORDER NO.: PB84-212802

ABSTRACT: THREE NEW DEWATERING METHODS ARE DESCRIBED IN DETAIL TOGETHER WITH THEIR PERFORMANCE CAPABILITIES. USING CASE HISTORIES OF ACTUAL INSTALLATIONS WITH THESE METHODS FOR THE DEWATERING OF PRIMARY AND WASTE ACTIVATED SLUDGE MIXTURES OPERATION, MAINTENANCE AND DESIGN INFORMATION IS PRESENTED. AN EFFORT IS MADE TO CRITICALLY COMPARE THESE METHODS WITH THOSE PRESENTLY BEING USED.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011528

PUBLICATION DATE: JUL 83

TITLE: EPA (ENVIRONMENTAL PROTECTION AGENCY) ENVIRONMENTAL DATA BASE AND MODEL DIRECTORY. VOLUME 1.

DESCRIPTOR: *DIRECTORIES; *EPA; *DATABASES; *ENVIRONMENT; *INFORMATION SOURCES; *MODELS; *ORGANIZATIONS

DESCRIPTIVE NOTE: 63P. PRICE CODE: PC A04/MF A01. ORDER NO.: PB84-207562

ABSTRACT: VOLUME 1 OF THE EPA ENVIRONMENTAL DATA BASE AND MODEL DIRECTORY CONSISTS OF THE FOLLOWING INDEXES: NAMES OF DATA BASES, NAMES OF MODELS, INDEX OF ORGANIZATIONS, NAMES OF DISCONTINUED DATA BASES, AND NAMES OF DISCONTINUED MODELS. THE BRIEF DESCRIPTION OF DATA BASES AND MODELS THAT APPEAR WITHIN EACH OF THE INDEXES POINTS TO THE SPECIFIC PAGE IN PARTS 1 AND 2 OF VOLUME 2 THAT CONTAIN A COMPLETE DESCRIPTIVE RECORD OF THAT DATA BASE OR MODEL.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011529

PUBLICATION DATE: JUL 83

TITLE: EPA (ENVIRONMENTAL PROTECTION AGENCY) ENVIRONMENTAL DATA BASE AND MODEL DIRECTORY. VOLUME 2. PARTS 1 AND 2.

DESCRIPTOR: *DIRECTORIES; *EPA; *ENVIRONMENT; *INFORMATION SOURCES; *MODELS; *ORGANIZATIONS

DESCRIPTIVE NOTE: 1633P. PRICE CODE: PC A99/MF E07.
ORDER NO.: PB84-207370

ABSTRACT: PART 1 OF VOLUME 2 BEGINS WITH THE NATIONAL INSTITUTE OF HEALTH/ENVIRONMENTAL PROTECTION AGENCY (NIH/EPA) CHEMICAL INFORMATION SYSTEMS (ACCESSION NO. 2209000905) ON PAGE 1 AND RUNS THROUGH THE MUSSELL WATCH DATA BASE (ACCESSION NO. 6408000201) ON PAGE 810. PART 2 OF VOLUME 2 BEGINS WITH THE COASTAL ENVIRONMENTAL ASSESSMENT STUDIES ON PAGE 812 AND RUNS THROUGH THE AGRICULTURAL WATERSHED RUNOFF MODEL ON PAGE 1625.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011330

PUBLICATION DATE: JUN 84

TITLE: USER'S MANUAL FOR TOX-SCREEN: A MULTIMEDIA SCREENING-LEVEL PROGRAM FOR ASSESSING THE POTENTIAL FATE OF CHEMICALS RELEASED TO THE E

PERSONAL AUTHOR: HETRICK, D. M.; MCDOWELL-BOYER, L. M.

DESCRIPTOR: *AIR POLLUTION; *CHEMICALS; *CHEMICAL IDENTIFICATION; *ENVIRONMENTAL EFFECTS; *MANUALS; *POLLUTION CONTROL; *SOIL POLLUTION; *TOX-SCREEN; *TOXIC SUBSTANCES; *USER MANUALS; *WATER POLLUTION

DESCRIPTIVE NOTE: 294P. PRICE CODE: PC A13/MF A01. ORDER NO.: PB84-213750

ABSTRACT: A SCREENING-LEVEL MULTIMEDIA MODEL CALLED TOX-SCREEN HAS BEEN DEVELOPED TO ASSESS THE POTENTIAL FATE OF TOXIC CHEMICALS RELEASED TO AIR, SURFACE WATER, OR SOIL. FOUR TYPES OF SURFACE WATER BODIES ARE CONSIDERED: LAKES, RIVERS, ESTUARIES, AND OCEANS. THE MODEL IS SIMPLIFIED IN NATURE AND IS INTENDED TO BE USED AS A SCREENING DEVICE TO IDENTIFY CHEMICALS THAT ARE UNLIKELY TO POSE PROBLEMS UNDER CONSERVATIVE ASSUMPTIONS. THE PURPOSE OF THIS REPORT IS TO PROVIDE A USER'S MANUAL FOR THE FORTRAN IV COMPUTER CODE, TOX-SCREEN, WHICH IMPLEMENTS THE MULTIMEDIA MODEL. A BRIEF DESCRIPTION OF THE MODEL ASSUMPTIONS AND STRUCTURE IS INCLUDED. THE STRUCTURE OF THE TOX-SCREEN PROGRAM AND INDIVIDUAL SUBROUTINES ARE DESCRIBED IN DETAIL. INPUT TO AND OUTPUT FROM THE CODE ARE THOROUGHLY EXPLAINED. PARAMETER DEFINITIONS, SAMPLE JOB CONTROL LANGUAGE, SAMPLE INPUT DATA, OUTPUT FROM TOX-SCREEN USING THE SAMPLE INPUT DATA, AND A LISTING OF THE PROGRAM ARE PROVIDED IN APPENDIXES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011531

PUBLICATION DATE: FEB 84

TITLE: CHEMICAL ACTIVITIES STATUS REPORT, FOURTH EDITION. VOLUME 1.

PERSONAL AUTHOR: MERRICK, E. T.; GRIM, P.

DESCRIPTOR: *EPA; *CHEMICALS; *HAZARDOUS MATERIALS; *REFERENCES; *REPORTS; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 440P. PRICE CODE: PC A19/MF A01. ORDER NO.: PB84-213958

ABSTRACT: THE EPA CHEMICAL ACTIVITY STATUS REPORT (EPACASR) IS A GUIDE TO AGENCY ACTIVITIES RELATING TO CHEMICAL SUBSTANCES. THE REPORT IS ORGANIZED INTO THREE SECTIONS: (1) ALPHABETIZED CHEMICAL NAME REFERENCE LISTING (AN INDEX OF NAMES USED FOR CHEMICALS INCLUDED IN THE TEXT), (2) CHEMICAL NAME SYNONYM LIST (SHOWING ALL SYNONYMS FOR CHEMICALS IN THE TEXT, AND ARRANGED BY CAS REGISTRY NUMBER), AND (3) EPA CHEMICAL ACTIVITIES REPORT (ARRANGED SEQUENTIALLY BY CAS REGISTRY NUMBER). SECTIONS 1 AND 2 ARE IN VOLUME 1, SECTION 3 IS IN VOLUME 11.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011532

PUBLICATION DATE: FEB 84

TITLE: CHEMICAL ACTIVITIES STATUS REPORT, FOURTH EDITION. VOLUME 2.

PERSONAL AUTHOR: MERRICK, E. T.; GRIM, P.

DESCRIPTOR: *EPA; *CHEMICALS; *HAZARDOUS MATERIALS; *REFERENCES; *REPORTS; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 729P. PRICE CODE: PC A99/MF E04. ORDER NO.: PB84-213966

ABSTRACT: THE EPA CHEMICAL ACTIVITY STATUS REPORT (EPACASR) IS A GUIDE TO AGENCY ACTIVITIES RELATING TO CHEMICAL SUBSTANCES. THE REPORT IS ORGANIZED INTO THREE SECTIONS: (1) ALPHABETIZED CHEMICAL NAME REFERENCE LISTING (AN INDEX OF NAMES USED FOR CHEMICALS INCLUDED IN THE TEXT), (2) CHEMICAL NAME SYNONYM LIST (SHOWING ALL SYNONYMS FOR CHEMICALS IN THE TEXT, AND ARRANGED BY CAS REGISTRY NUMBER), AND (3) EPA CHEMICAL ACTIVITIES REPORT (ARRANGED SEQUENTIALLY BY CAS REGISTRY NUMBER). SECTIONS 1 AND 2 ARE IN VOLUME 1, SECTION 3 IS IN VOLUME 11.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011533

PUBLICATION DATE: JUL 84

TITLE: CHROMATOGRAPHY FOR POLLUTION AND TOXICOLOGICAL ANALYSIS. 1983 - JULY, 1984 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ANNOTATED

BIBLIOGRAPHIES; BIBLIOGRAPHIES; *AIR POLLUTION;
*CHROMATOGRAPHY; POLLUTION; *RESEARCH; *TOXIC SUBSTANCES;
*WATER POLLUTION

DESCRIPTIVE NOTE: 146P. PRICE CODE: PC N01/MF N01. ORDER
NO.: PB84-871409

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING
RESEARCH AND DEVELOPMENT OF CHROMATOGRAPHIC ADSORPTION
PROCESSES FOR ANALYSIS OF POLLUTION AND TOXINS FROM
INDUSTRY. ADSORPTION OF COMPOUNDS IN AN ASCENDING MOLECULAR
WEIGHT ORDER ONTO SUCH ADSORBENT MATERIALS AS ACTIVATED
CARBON, ALUMINA, OR SILICA GEL IS DISCUSSED WITH REFERENCE
TO PERFORMANCE AND APPLICATIONS. VARIOUS AIR AND WATER
POLLUTANTS, WASTES, AND TOXIC MATERIALS ARE DISCUSSED. (THIS
UPDATED BIBLIOGRAPHY CONTAINS 150 CITATIONS, ALL OF WHICH
ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011534

PUBLICATION DATE: JUL 84

TITLE: CHROMATOGRAPHY FOR POLLUTION AND TOXICOLOGICAL
ANALYSIS. NOVEMBER, 1976-1982 (CITATIONS FROM THE NTIS DATA
BASE).

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *ANNOTATED
BIBLIOGRAPHIES; *AIR POLLUTION; BIBLIOGRAPHIES;
*CHROMATOGRAPHY; *LABORATORY PROCEDURES; POLLUTION;
*RESEARCH; *TOXIC SUBSTANCES; *WATER POLLUTION

DESCRIPTIVE NOTE: 481P. PRICE CODE: PC N01/MF N01. ORDER
NO.: PB84-871391

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING
RESEARCH AND DEVELOPMENT OF CHROMATOGRAPHIC ADSORPTION
PROCESSES FOR ANALYSIS OF POLLUTION AND TOXINS FROM
INDUSTRY. ADSORPTION OF COMPOUNDS IN AN ASCENDING MOLECULAR
WEIGHT ORDER ONTO SUCH ADSORBENT MATERIALS AS ACTIVATED
CARBON, ALUMINA, OR SILICA GEL IS DISCUSSED WITH REFERENCE
TO PERFORMANCE AND APPLICATIONS. VARIOUS AIR AND WATER
POLLUTANTS, WASTES, AND TOXIC MATERIALS ARE DISCUSSED. (THIS
UPDATED BIBLIOGRAPHY CONTAINS 353 CITATIONS, NONE OF WHICH
ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285
PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011536

PUBLICATION DATE: JUL 84

TITLE: CONSOLIDATING FEDERAL STREAM FORECASTING ACTIVITIES
MAY REDUCE DUPLICATION OF RESOURCES AND EFFORT. REPORT BY
THE U.S. GENERAL ACC

DESCRIPTOR: *COORDINATION; *COSTS; *FORECASTING;

*PERFORMANCE EVALUATION; *RIVERS; *STREAMS; *WATER RESOURCES

DESCRIPTIVE NOTE: 53P. FIRST FIVE COPIES FREE OF CHARGE;
ADDITIONAL COPIES \$3.25.

ABSTRACT: THIS REPORT DISCUSSES THE STREAM FORECASTING
ACTIVITIES OF THE NATIONAL WEATHER SERVICE, THE ARMY CORPS
OF ENGINEERS, AND OTHER FEDERAL WATER RESOURCES OPERATING
AGENCIES. THE REPORT INDICATES THAT SAVINGS COULD BE
REALIZED BY CONSOLIDATING THESE INDEPENDENT ACTIVITIES INTO
REGIONAL RIVER FORECAST CENTERS. AGENCY RESPONSES AND GAO
COMMENTS ARE INCLUDED.

AVAILABILITY: U.S. GENERAL ACCOUNTING OFFICE, DOCUMENT
HANDLING AND INFORMATION SERVICES FACILITY, P.O. BOX 6015,
GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW011537

PUBLICATION DATE: JUN 84

TITLE: EPA'S EFFORTS TO IDENTIFY AND CONTROL HARMFUL
CHEMICALS IN USE. REPORT BY THE COMPTROLLER GENERAL OF THE
UNITED STATES.

DESCRIPTOR: *CHEMICALS; *EPA; *ENVIRONMENT; *FEDERAL ROLE;
*HAZARDOUS MATERIALS; *HEALTH; *PERFORMANCE EVALUATION;
*PRIORITY CHEMICALS; *RECOMMENDATIONS; *TOXIC SUBSTANCES

DESCRIPTIVE NOTE: 69P. FIRST FIVE COPIES FREE OF CHARGE;
ADDITIONAL COPIES \$3.25.

ABSTRACT: THIS REPORT FOCUSES ON EPA'S EFFORTS TO REVIEW
AND CONTROL EXISTING CHEMICALS. PROCEDURES FOLLOWED BY EPA
IN THIS AREA ARE REVIEWED. RECOMMENDATIONS TO EPA AND
MATTERS FOR THE CONSIDERATION OF CONGRESS ARE PRESENTED.

AVAILABILITY: U.S. GENERAL ACCOUNTING OFFICE, DOCUMENT
HANDLING AND INFORMATION SERVICES FACILITY, P.O. BOX 6015,
GAITHERSBURG, MD 20760

IRIS ACCESSION NUMBER: EW011538

PUBLICATION DATE: 84

TITLE: A MATTER OF MINUTES. WORKING SAFELY WITH HYDROGEN
SULFIDE (WASTEWATER TREATMENT).

DESCRIPTOR: *AUDIOVISUAL AIDS; *ACCIDENT PREVENTION;
*HYDROGEN SULFIDE; *INSTRUCTIONAL MATERIALS; *OPERATIONS
(WASTEWATER); *POSTSECONDARY EDUCATION; *SAFETY; *WASTEWATER
TREATMENT

DESCRIPTIVE NOTE: PRICE: \$360.00. AVAILABLE IN SLIDE/TAPE
FORMAT OR VIDEOCASSETTE.

ABSTRACT: THIS IS A TRAINING PROGRAM DESIGNED TO ALERT
EMPLOYEES TO THE POTENTIAL HAZARDS OF HYDROGEN SULFIDE
EXPOSURE IN THE WASTEWATER TREATMENT INDUSTRY. THE MATERIALS
EXAMINE THE CHARACTERISTICS OF HYDROGEN SULFIDE. THE

PHYSICAL EFFECTS OF EXPOSURE, POTENTIAL SOURCES, MONITORING TECHNIQUES, PROTECTIVE STEPS, AND RESCUE PROCEDURES. INCLUDED IN THE TRAINING PACKAGE ARE SLIDES OR A VIDEOCASSETTE AND A LEADERS GUIDE.

AVAILABILITY: INDUSTRIAL TRAINING SYSTEMS CORPORATION, 823 EAST GATE DRIVE, MOUNT LAUREL, NJ 08054

IRIS ACCESSION NUMBER: EW011539

TITLE: OIL AND HAZARDOUS MATERIALS SPILLS AND DUMP CONFERENCE - 1980.

DESCRIPTOR: *CONFERENCE PROCEEDINGS; *ENVIRONMENTAL POLLUTION; *HAZARDOUS MATERIALS; *OIL; *POLLUTION CONTROL; *SPILLS; *WASTE SITES

DESCRIPTIVE NOTE: 300P. PRICE: \$20.00 LOOSE-LEAF BINDER. ORDER NO.: OHMC

ABSTRACT: THIS PUBLICATION IS FULL OF PRACTICAL "HOW-TO-DO" INFORMATION FOR ALL FACETS OF IDENTIFYING HAZARDOUS WASTE SITES AND CONTROLLING AND REMEDYING THE CONSEQUENCES OF UNCONTROLLED WASTE SITES. THE PROCEEDINGS, IN THE FORM OF A LOOSELEAF BINDER, PERMITS THE ACQUISITION OF OTHER VALUABLE CONTRIBUTIONS IN THIS ACUTE AREA OF ENVIRONMENTAL POLLUTION RESPONSE.

AVAILABILITY: HAZARDOUS MATERIALS CONTROL RESEARCH INSTITUTE, 9300 COLUMBIA BLVD., SILVER SPRING, MD 20910

IRIS ACCESSION NUMBER: EW011541

TITLE: QUALITY ASSURANCE OF ENVIRONMENTAL MEASUREMENTS: SAMPLING, VALIDATION, QUALITY CONTROL - 1978.

DESCRIPTOR: *ANALYTICAL TECHNIQUES; *DATA; *ENVIRONMENTAL DATA; *LABORATORY PROCEDURES; *MEASUREMENT; *QUALITY CONTROL; *SAMPLING

DESCRIPTIVE NOTE: 245P. PRICE: \$15.00 SOFTCOVER. ORDER NO.: QAB

ABSTRACT: THE INFORMATION PRESENTED FOCUSES ON THE EFFORTS NEEDED TO ENSURE THAT VALIDATED SAMPLING, MEASUREMENT SYSTEMS AND QUALITY CONTROL ARE USED TO PRODUCE PRECISE, ACCURATE, COMPARABLE AND LEGALLY DEFENSIBLE DATA.

AVAILABILITY: HAZARDOUS MATERIALS CONTROL RESEARCH INSTITUTE, 9300 COLUMBIA BLVD., SILVER SPRING, MD 20910

IRIS ACCESSION NUMBER: EW011542

PUBLICATION DATE: 82

TITLE: GUIDELINES FOR THE USE OF RECLAIMED WATER FOR AQUIFER RECHARGE 1982.

DESCRIPTOR: *AQUIFER RECHARGE; *GUIDELINES; *AUSTRALIA; *GROUNDWATER; *HYDRAULICS; *RECLAMATION; *RESEARCH; *SOIL; *TECHNOLOGY; *WATER REUSE; *WATER RESOURCES

DESCRIPTIVE NOTE: 119P.

ABSTRACT: THIS BOOK IS PREPARED WITH EMPHASIS ON ASSESSING THE POTENTIAL FOR RECHARGE AND THE NEED FOR RESEARCH THROUGH STUDY AND OPERATION IN AUSTRALIA. IT PRESENTS SOME ASPECTS OF GROUNDWATER HYDRAULICS AND SOIL TECHNOLOGY WHICH ARE ESPECIALLY RELEVANT TO THIS SUBJECT.

AVAILABILITY: THE WATER BRANCH, DEPARTMENT OF NATIONAL DEVELOPMENT AND ENERGY, CANBERRA, AUSTRALIA

IRIS ACCESSION NUMBER: EW011543

PUBLICATION DATE: JUL 84

TITLE: URBAN ECOLOGY. 1978-JUNE, 1984 (CITATIONS FROM THE LIFE SCIENCES COLLECTION DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; BIOLOGY; *ECOLOGY; MANAGEMENT; METEOROLOGY; *PLANNING; *URBAN AREAS; WATER USE

DESCRIPTIVE NOTE: 107P. PRICE CODE: PC N01/MF N01. ORDER NO.: PBB4-870138

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING ECOLOGICAL ASPECTS OF URBAN AREAS AND URBANIZATION PROCESSES. TOPICS INCLUDE EFFECTS OF URBANIZATION ON FLORA AND FAUNA IN SPECIFIC CITIES, PLANT AND ANIMAL POPULATION STUDIES, WATER USE AND MANAGEMENT, AND ECOLOGICAL CONSIDERATIONS IN URBAN PLANNING. METEOROLOGICAL INFLUENCES OF URBAN AREAS ALSO DISCUSSED. (CONTAINS 139 CITATIONS FULLY INDEXED AND INCLUDING A TITLE LIST.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011544

PUBLICATION DATE: JUL 84

TITLE: OXYGEN SENSORS. 1970-JULY, 1984 (CITATIONS FROM THE NTIS DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; *LABORATORY EQUIPMENT; MONITORING; *OXYGEN; *RESEARCH; *SENSORS; *TECHNOLOGY

DESCRIPTIVE NOTE: 127P. PRICE CODE: PC N01/MF N01. ORDER NO.: PBB4-870286

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING TECHNOLOGY AND APPLICATIONS OF OXYGEN SENSORS. SENSOR DESIGN, FABRICATION, PERFORMANCE TESTS, AND DEVELOPMENT ARE DISCUSSED. APPLICATIONS IN BLOOD GAS ANALYSIS, LIFE SUPPORT SYSTEMS, WATER QUALITY MONITORING, SOLID STATE DEVICES, AND

PERSONNEL HAZARD MONITORING ARE INCLUDED. TOPICS ALSO INCLUDE OXYGEN SENSING MATERIALS AND PORTABLE OXYGEN SENSORS. (THIS UPDATED BIBLIOGRAPHY CONTAINS 131 CITATIONS, 14 OF WHICH ARE NEW ENTRIES TO THE PREVIOUS EDITION.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011545

PUBLICATION DATE: JUL 84

TITLE: ECOLOGY OF MARINE MOLLUSCS. 1980-JUNE, 1984 (CITATIONS FROM THE LIFE SCIENCES COLLECTION DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; BIOLOGY; *ECOLOGY; *MOLLUSCS; *MARINE BIOLOGY; OCEANOGRAPHY; POLLUTION; SALINITY

DESCRIPTIVE NOTE: 69P. PRICE CODE: PC N01/MF N01. ORDER NO.: PBB4-870662

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING ECOLOGICAL ASPECTS OF MARINE MOLLUSCS. TOPICS INCLUDE FEEDING BEHAVIOR, POPULATION STUDIES, BIOACCUMULATION AND EFFECTS OF POLLUTANTS, AND TEMPERATURE AND SALINITY TOLERANCES. REPRODUCTION AND GROWTH ASPECTS ARE ALSO CONSIDERED. (CONTAINS 73 CITATIONS FULLY INDEXED AND INCLUDING A TITLE LIST.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011546

PUBLICATION DATE: JUL 84

TITLE: ECOLOGY OF FRESHWATER MOLLUSCS. 1980-JUNE, 1984 (CITATIONS FROM THE LIFE SCIENCES COLLECTION DATA BASE).

DESCRIPTOR: *ANNOTATED BIBLIOGRAPHIES; BIBLIOGRAPHIES; BIOLOGY; *ECOLOGY; *FRESH WATER; *MOLLUSCS; POLLUTION

DESCRIPTIVE NOTE: 62P. PRICE CODE: PC N01/MF N01. ORDER NO.: PBB4-870054

ABSTRACT: THIS BIBLIOGRAPHY CONTAINS CITATIONS CONCERNING ECOLOGICAL ASPECTS OF FRESHWATER MOLLUSCS. TOPICS INCLUDE HABITAT DESCRIPTIONS, ABUNDANCE AND GEOGRAPHICAL DISTRIBUTIONS, GROWTH AND REPRODUCTION, AND FEEDING BEHAVIOR. POLLUTION EFFECTS AND STUDIES OF POPULATION STRUCTURES ARE ALSO DISCUSSED. (CONTAINS 69 CITATIONS FULLY INDEXED AND INCLUDING A TITLE LIST.)

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011547

PUBLICATION DATE: APR 84

TITLE: CORROSION MANUAL FOR INTERNAL CORROSION OF WATER DISTRIBUTION SYSTEMS.

PERSONAL AUTHOR: SINGLEY, J. E.; AND OTHERS

DESCRIPTOR: *CORROSION; *MANUALS; *METALS; *WATER PIPES; *WATER DISTRIBUTION; *WATER TREATMENT

DESCRIPTIVE NOTE: 142P. PRICE CODE: PC A07/MF A01. ORDER NO.: PBB4-210293

ABSTRACT: CORROSION OF DISTRIBUTION PIPING AND OF HOME PLUMBING AND FIXTURES HAS BEEN ESTIMATED TO COST THE PUBLIC WATER SUPPLY INDUSTRY MORE THAN \$700 MILLION PER YEAR. TWO TOXIC METALS THAT OCCUR IN TAP WATER, ALMOST ENTIRELY BECAUSE OF CORROSION, ARE LEAD AND CADMIUM. THREE OTHER METALS, USUALLY PRESENT BECAUSE OF CORROSION, CAUSE STAINING OF FIXTURES, METALLIC TASTE, OR BOTH. THESE ARE COPPER (BLUE STAINS AND METALLIC TASTE), IRON (RED-BROWN STAINS AND METALLIC TASTE), AND ZINC (METALLIC TASTE). THIS MANUAL WAS WRITTEN TO GIVE THE OPERATORS OF POTABLE WATER TREATMENT PLANTS AND DISTRIBUTION SYSTEMS AN UNDERSTANDING OF THE CAUSES AND CONTROL OF CORROSION. THE MANY TYPES OF CORROSION AND THE TYPES OF MATERIALS WITH WHICH THE WATER COMES IN CONTACT MAKE THE PROBLEM MORE COMPLICATED. BECAUSE ALL OPERATORS HAVE NOT HAD THE OPPORTUNITY TO GAIN MORE THAN A BASIC UNDERSTANDING OF CHEMISTRY AND ENGINEERING, THERE IS LITTLE OF THESE DISCIPLINES INCLUDED IN THE DOCUMENT.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011548

PUBLICATION DATE: MAR 84

TITLE: OUTER CONTINENTAL SHELF ENVIRONMENTAL ASSESSMENT PROGRAM: COMPREHENSIVE BIBLIOGRAPHY.

DESCRIPTOR: *BIBLIOGRAPHIES; *COASTAL ENVIRONMENT; *ENVIRONMENTAL ASSESSMENT; *CONTINENTAL SHELF; *MARINE ENVIRONMENT; *MANAGEMENT; *OCSEAP

DESCRIPTIVE NOTE: 614P. PRICE CODE: PC A99/MF A01. ORDER NO.: PBB4-208008

ABSTRACT: THE PROTECTION OF THE MARINE AND COASTAL ENVIRONMENT IS MANDATED BY THE OUTER CONTINENTAL SHELF (OCS) LANDS ACT OF 1953, THE NATIONAL ENVIRONMENTAL POLICY ACT OF 1969, AND THE OCS LANDS ACT AMENDMENTS OF 1978. THE OBJECTIVES OF OCSEAP ARE: TO PROVIDE INFORMATION ABOUT THE OCS ENVIRONMENT THAT WILL ENABLE DOI TO MAKE SOUND MANAGEMENT DECISIONS REGARDING THE DEVELOPMENT OF MINERAL RESOURCES ON THE OCS; TO ACQUIRE INFORMATION THAT WILL ENABLE DOI TO IDENTIFY THOSE ASPECTS OF THE ENVIRONMENT THAT MIGHT BE AFFECTED BY OIL AND GAS EXPLORATION AND DEVELOPMENT; TO ESTABLISH A BASIS FOR PREDICTING THE EFFECTS OF OCS OIL AND GAS ACTIVITIES ON THE ENVIRONMENT; TO ACQUIRE

IMPACT DATA THAT MAY RESULT IN MODIFICATION OF LEASING STIPULATIONS, OPERATING REGULATIONS, AND OCS OPERATING ORDERS IN ORDER TO PERMIT MORE EFFICIENT RESOURCE RECOVERY WITH ADEQUATE ENVIRONMENTAL PROTECTION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011549

PUBLICATION DATE: 83

TITLE: APPLICATION OF COMPUTERS AT SEWAGE TREATMENT WORKS, WATER TREATMENT WORKS AND PUMPING STATIONS: AN ANNOTATED BIBLIOGRAPHY COVERING

PERSONAL AUTHOR: HAMILTON, I. M.

DESCRIPTOR: *AUTOMATION; *COMPUTERS; *COMPUTER APPLICATIONS; *DATA ANALYSIS; *MACHINE CONTROL; *OPERATIONS (WASTEWATER); *PROCESS CONTROL; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 79P. PRICE CODE: PC E08/MF E08. ORDER NO.: PB84-201839

ABSTRACT: THIS BIBLIOGRAPHY IS AN UPDATED VERSION OF WATER RESEARCH CENTRE OCCASIONAL REPORT OR9. THIS REPORT IS CONCERNED SPECIFICALLY WITH THE APPLICATION OF COMPUTERS. THE BIBLIOGRAPHY LISTS APPLICATIONS OF COMPUTERS; IT DOES NOT COVER GENERAL PAPERS CONSIDERING THE WAYS IN WHICH COMPUTERS SHOULD BE USED. PILOT-SCALE STUDIES, SIMULATIONS AND OFF-LINE APPLICATIONS ARE ALSO EXCLUDED. MATERIALS INCLUDE ITEMS FOR PROCESS, MACHINE CONTROL, AND DATA LOGGING.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011550

PUBLICATION DATE: MAY 84

TITLE: SAMPLING PROCEDURES FOR GROUND WATER QUALITY INVESTIGATIONS.

PERSONAL AUTHOR: SCALF, M. R.

DESCRIPTOR: *GROUNDWATER; *POLLUTION; *SAMPLING; *SAMPLING WELLS; *WATER QUALITY; *WATER RESOURCES

DESCRIPTIVE NOTE: 37P. PRICE CODE: PC A03/MF A01. ORDER NO.: PB84-194844

ABSTRACT: TO PROVIDE A REALISTIC ASSESSMENT OF CURRENT AND POTENTIAL POLLUTION PROBLEMS AND A RATIONAL BASIS FOR GROUND WATER QUALITY PROTECTION, IT IS NECESSARY TO COLLECT REPRESENTATIVE SAMPLES. THIS ARTICLE PRESENTS SOME PROCEDURES USED TO SAMPLE GROUND WATER AND SUBSURFACE EARTH MATERIALS FOR MICROBIAL AND INORGANIC AND ORGANIC CHEMICAL PARAMETERS. VARIOUS TECHNIQUES FOR CONSTRUCTING SAMPLING

WELLS AND FOR WITHDRAWING SAMPLES ARE NOTED. FOR SITUATIONS WHERE SAMPLES OF SUBSURFACE EARTH MATERIALS ARE REQUIRED TO ADEQUATELY ASSESS GROUND-WATER QUALITY THREATS, PROCEDURES ARE DESCRIBED FOR COLLECTING, HANDLING, AND PROCESSING CORE SAMPLES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011551

PUBLICATION DATE: AUG 83

TITLE: APPLICATION OF WASTEWATER TO WETLAND.

PERSONAL AUTHOR: BRINSON, M. M.; WESTALL, F. R.

DESCRIPTOR: *LAND APPLICATION; *NORTH CAROLINA; *OPERATIONS (WASTEWATER); *TECHNOLOGY; *SLUDGE; *WASTEWATER; *WETLANDS; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 34P. PRICE CODE: PC A03/MF A01. ORDER NO.: PB84-190388

ABSTRACT: THE FIFTH OF A SERIES OF FIVE REPORTS DEALING WITH LAND (AND WET LAND) TREATMENT OF WASTEWATER AND SLUDGE UNDER THE GENERAL GUIDANCE OF A TASK FORCE REPRESENTING NORTH CAROLINA REGULATORY AGENCIES AND UNIVERSITIES. DRAFT REPORTS WERE CRITIQUED BY OTHER SPECIALISTS AND PRACTITIONERS AT REGIONAL CONFERENCE BEFORE PUBLICATION. THIS REPORT REVIEWS THE STATUS OF WETLAND TREATMENT TECHNOLOGY AND EXAMINES ITS POTENTIAL APPLICATION IN NORTH CAROLINA AND SIMILAR AREAS.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011552

PUBLICATION DATE: AUG 83

TITLE: GENERAL GUIDELINES FOR LAND TREATMENT OF SLUDGE.

PERSONAL AUTHOR: KING, L. D.; WESTERMAN, P. W.

DESCRIPTOR: *DESIGN; *GUIDELINES; *LAND APPLICATION; *LAND TREATMENT; *MANAGEMENT; *MONITORING; *NORTH CAROLINA; *OPERATIONS (WASTEWATER); *SITE SELECTION; *SLUDGE; *WETLANDS; *WASTEWATER; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 45P. PRICE CODE: PC A03/MF A01. ORDER NO.: PB84-190362

ABSTRACT: THE THIRD OF A SERIES OF FIVE REPORTS DEALING WITH THE LAND (AND WETLAND) TREATMENT OF WASTEWATER AND SLUDGE PREPARED UNDER THE GENERAL GUIDANCE OF A TASK FORCE REPRESENTING NORTH CAROLINA REGULATORY AGENCIES AND UNIVERSITIES. THIS BOOKLET PRESENTS A DISCUSSION OF LAND TREATMENT OF SLUDGE AND GENERAL GUIDELINES FOR DESIGN AND MANAGEMENT OF RELATED LAND TREATMENT SYSTEMS. INTRODUCTION

COVERS BASIC CONSIDERATIONS AND GENERAL DESIGN PRINCIPLES. MAJOR SECTIONS INCLUDE SLUDGE CHARACTERIZATION, SITE EVALUATION AND SELECTION, SITE ASSIMILATIVE CAPACITY AND LAND REQUIREMENT, SYSTEM MANAGEMENT, MONITORING REQUIREMENTS, AND PUBLIC HEALTH PROTECTION.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

IRIS ACCESSION NUMBER: EW011533

PUBLICATION DATE: AUG 83

TITLE: GENERAL GUIDELINES FOR LAND TREATMENT OF WASTEWATER.

PERSONAL AUTHOR: WESTERMAN, P. W.; KING, L. D.

DESCRIPTOR: *DESIGN; *GUIDELINES; *LAND APPLICATIONS; *LAND TREATMENT; *MANAGEMENT; *OPERATIONS (WASTEWATER); *SLUDGE; *WETLANDS; *WASTEWATER; *WASTEWATER TREATMENT

DESCRIPTIVE NOTE: 55P. PRICE CODE: PC A04/MF A01. ORDER NO.: PB84-190354

ABSTRACT: THE SECOND OF A SERIES OF FIVE REPORTS DEALING WITH THE LAND (AND WETLAND) TREATMENT OF WASTEWATER AND SLUDGE PREPARED UNDER THE GENERAL GUIDANCE OF A TASK FORCE REPRESENTING NORTH CAROLINA REGULATORY AGENCIES AND UNIVERSITIES. DRAFT REPORTS WERE CRITIQUED BY OTHER SPECIALISTS AND PRACTITIONERS AT REGIONAL CONFERENCE BEFORE PUBLICATION. THIS BOOKLET PRESENTS A DISCUSSION OF LAND TREATMENT OF WASTEWATER EFFLUENT AND GENERAL GUIDELINES FOR DESIGN AND MANAGEMENT OF RELATED LAND TREATMENT SYSTEMS. IT DOES NOT PRESENT DETAILED STANDARDS AND ATTEMPTS TO LEAVE MAXIMUM LATITUDE FOR INNOVATIVE DESIGN BY COMPETENT PROFESSIONALS. INTRODUCTION INCLUDES BASIC CONSIDERATIONS FOR DESIGN, GENERAL DESIGN PRINCIPLES, AND SYSTEM ALTERNATIVES.

AVAILABILITY: NATIONAL TECHNICAL INFORMATION SERVICE, 5285 PORT ROYAL ROAD, SPRINGFIELD, VA 22161

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*ENVIRONMENTAL IMPACTS	(3)	EW011504							
*ENVIRONMENTAL INFLUENCES	(1)	EW011390	EW011474						
*ENVIRONMENTAL POLLUTION	(1)	EW011503							
*ENVIRONMENTAL SCIENCES	(1)	EW011374							
*EPA	(13)	EW011312	EW011314	EW011322	EW011503	EW011505			
EPA	(1)	EW011126	EW011306	EW011321	EW011419	EW011423	EW011477	EW011480	
*EPA METHOD STUDY	(1)	EW011494	EW011528	EW011529	EW011531	EW011532	EW011537		
*EPIDEMIOLOGY	(1)	EW011313							
*EQUIPMENT	(16)	EW011371							
EQUIPMENT	(1)	EW011498							
*EQUIVALENT FLOW	(1)	EW011176	EW011187	EW011293	EW011308	EW011332	EW011344	EW011349	
EROSION	(1)	EW011367	EW011376	EW011391	EW011394	EW011433	EW011450	EW011493	
	(1)	EW011495							
	(1)	EW011208							
	(1)	EW010868							

ESTUARIES	(2)	EW011306	EW011402						
*EUROPE	(1)	EW011499							
*EUTROPHICATION	(1)	EW011377							
*EVALUATION	(12)	EW010802	EW010804	EW011174	EW011303	EW011349	EW011378	EW011436	
	EW011437	EW011451	EW011455	EW011488	EW011522				
*EVAPORATION	(1)	EW011354							
*EXAMS	(1)	EW011513							
*EXTRAN	(1)	EW011389							
*FACILITIES	(27)	EW011186	EW011193	EW011289	EW011291	EW011292	EW011293	EW011298	
	EW011308	EW011327	EW011329	EW011333	EW011337	EW011344	EW011367	EW011391	
	EW011394	EW011400	EW011406	EW011410	EW011420	EW011431	EW011456	EW011461	
	EW011489	EW011490	EW011516	EW011522					
FACILITIES	(2)	EW011123	EW011492						
*FACILITY MODIFICATIONS	(1)	EW011187							
*FACTOR ANALYSIS	(1)	EW011283							
*FARMS	(1)	EW011471							
FEDERAL GRANTS	(1)	EW011492							
*FEDERAL ROLE	(3)	EW011307	EW011430	EW011537					
FEDERAL ROLE	(2)	EW011346	EW011492						
*FEEDBACK	(1)	EW011455							
*FIELD METHODS	(1)	EW011322							
*FILMS	(1)	EW011464							
*FILMSTRIPS	(1)	EW011485							
*FILTER BOXES	(1)	EW011433							
*FILTRATION	(3)	EW011111	EW011406	EW011490					
*FINANCES	(1)	EW011157							
*FINANCIAL CAPABILITY	(1)	EW011329							
*FINANCING	(1)	EW011328							
FISHERIES	(1)	EW011469							
*FLOOD CONTROL	(1)	EW011401							
*FLOODING	(1)	EW011457							
FLOODING	(1)	EW011202							
*FLORIDA	(2)	EW011189	EW011519						
FLORIDA	(1)	EW011160							

*FLOW	(1)	EW011208	
*FLOW MEASUREMENT	(1)	EW011357	
*FLUID FLOW	(1)	EW011497	
*FLUORIDES	(1)	EW011516	
*FOOD	(1)	EW011504	
*FOODBORNE	(1)	EW011159	
FOOD INDUSTRY	(1)	EW011495	
FOOD PROCESSING	(1)	EW011159	
FOOD SERVICE	(1)	EW011159	
*FORECASTING	(1)	EW011536	
FORTRAN	(1)	EW011355	
*FOUNDRIES	(1)	EW011366	
*FREEZING	(1)	EW011111	
*FRESH WATER	(1)	EW011546	
*FRESHWATER	(1)	EW011463	
FRESHWATER ENVIRONMENT	(1)	EW011108	
*FUEL	(1)	EW011331	
*FUNDING	(1)	EW011306	
*CAC	(1)	EW011430	
*CAO	(1)	EW011403	
*GAS CHROMATOGRAPHY	(2)	EW011304	EW011423
*GEAR REDUCERS	(1)	EW011493	
*GENERATORS	(1)	EW011410	
*GENETICS	(2)	EW011505	EW011524
*GEOCHEMISTRY	(1)	EW011185	
GEOLOGY	(1)	EW011485	
*GEOTHERMAL ENERGY	(1)	EW011390	
*GIARDIA	(2)	EW011325	EW011411
*GIARDIASIS	(1)	EW011325	
*COAL PROGRAMMING MODEL	(1)	EW011204	
*COALS	(1)	EW011090	
*GOVERNMENT	(1)	EW011287	

*GOVERNMENT ROLE	(1)	EW011202							
*GRANT APPLICATIONS	(1)	EW011329							
*GRANULAR ACTIVATED CARBON	(1)	EW011430							
GREAT LAKES	(1)	EW011160							
*GROUNDWATER	(18)	EW011157	EW011158	EW011185	EW011196	EW011206	EW011207	EW011218	
		EW011317	EW011346	EW011364	EW011368	EW011384	EW011390	EW011485	EW011486
		EW011519	EW011542	EW011550					
GROUNDWATER	(1)	EW011397							
*GROUNDWATER CONTAMINATION	(1)	EW011158							
*GUIDEBOOKS	(1)	EW011329							
*GUIDELINES	(10)	EW011188	EW011313	EW011337	EW011372	EW011459	EW011469	EW011510	
		EW011542	EW011552	EW011553					
*GUIDES	(5)	EW011323	EW011369	EW011378	EW011383	EW011469			
*HABITATS	(1)	EW011469							
*HANDBOOKS	(6)	EW011124	EW011186	EW011324	EW011372	EW011385	EW011388		
*HAWAII	(1)	EW011338							
*HAZARDOUS MATERIALS	(12)	EW011125	EW011369	EW011473	EW011474	EW011475	EW011478	EW011480	
		EW011481	EW011531	EW011532	EW011537	EW011539			
*HAZARDOUS WASTES	(12)	EW011124	EW011126	EW011184	EW011295	EW011312	EW011384	EW011419	
		EW011473	EW011474	EW011476	EW011477	EW011479			
*HEALTH	(11)	EW011026	EW011123	EW011416	EW011426	EW011427	EW011464	EW011472	
		EW011498	EW011499	EW011504	EW011537				
HEALTH	(3)	EW011483	EW011484	EW011509					
*HEAT	(1)	EW011422							
*HEATING	(2)	EW011331	EW011422						
*HEAT RECOVERY	(1)	EW011193							
*HEAVY METALS	(1)	EW011513							
HEAVY METALS	(1)	EW011108							
*HERBICIDES	(2)	EW011190	EW011514						
*HIGHER EDUCATION	(1)	EW011077							
*HIGHWAYS	(3)	EW011310	EW011311	EW011365					
*HOSPITALS	(1)	EW011449							
*HUMAN RESOURCES DEVELOPMENT	(1)	EW011178							
*HUMAN RESOURCE SYSTEMS	(1)	EW011177							
*HYDRAULICS	(7)	EW011218	EW011310	EW011311	EW011355	EW011365	EW011433	EW011542	

*HYDROCARBONS	(1)	EW011350							
*HYDROGEN SULFIDE	(1)	EW011538							
*HYDROLIQUIFICATION	(1)	EW011518							
*HYDROLOGY	(2)	EW011106	EW011354						
*IDENTIFICATION	(1)	EW011199							
*ILLINOIS	(3)	EW011362	EW011401	EW011523					
*INCENTIVES	(1)	EW011184							
INDEXES	(2)	EW067885	EW010323						
*INDIANA	(2)	EW011362	EW011490						
*INDUSTRIAL PROCESSES	(2)	EW011566	EW011507						
*INDUSTRIAL WASTES	(21)	EW011304	EW011339	EW011340	EW011341	EW011342	EW011343	EW011344	
	EW011345	EW011366	EW011403	EW011404	EW011408	EW011409	EW011410	EW011425	
	EW011471	EW011482	EW011483	EW011484	EW011507	EW011509			
INDUSTRIAL WASTES	(2)	EW011313	EW011506						
*INDUSTRIES	(2)	EW011499	EW011502						
*INDUSTRY	(4)	EW011196	EW011366	EW011385	EW011408				
INDUSTRY	(1)	EW011108							
*INFORMATION DISSEMINATION	(1)	EW010323							
INFORMATION MANAGEMENT	(1)	EW011494							
*INFORMATION SOURCES	(3)	EW011297	EW011528	EW011529					
*INSPECTION	(4)	EW011124	EW011126	EW011370	EW011510				
*INSTALLATION	(1)	EW011450							
*INSTRUCTION	(6)	EW010804	EW010805	EW011077	EW011089	EW011205	EW011451		
*INSTRUCTIONAL MATERIALS	(15)	EW007885	EW007886	EW010323	EW011167	EW011173	EW011367	EW011374	
	EW011454	EW011464	EW011465	EW011485	EW011498	EW011500	EW011501	EW011538	
*INSTRUCTIONAL TELEVISION	(1)	EW011077							
*INSTRUMENTATION	(7)	EW011273	EW011278	EW011279	EW011280	EW011284	EW011285	EW011286	
INSTRUMENTATION	(3)	EW011272	EW011281	EW011282					
*INTERACTIVE SIMULATION	(1)	EW011205							
*INTERACTIVE VIDEODISCS	(1)	EW011173							
*INTERNATIONAL ACTIVITIES	(1)	EW011499							
*INTERSTATE CONFERENCE ON WATER PROBLEMS	(1)	EW011157							
*INTERVIEWS	(2)	EW011174	EW011432						
*INVENTORIES	(1)	EW011122							

*ION EXCHANGE	(2)	EW011305	EW011456						
*IONIC STRENGTH	(1)	EW011435							
*IRON	(1)	EW011366							
*IRRIGATION	(1)	EW011338							
*ISSUES	(1)	EW011402							
*JOB ANALYSES	(1)	EW011163							
*JOB SKILLS	(1)	EW007886							
*JOB TRAINING	(1)	EW007886							
*KENTUCKY	(1)	EW011204							
KINETICS	(1)	EW011272							
*LABORATORIES	(2)	EW011333	EW011516						
LABORATORIES	(1)	EW011123							
*LABORATORY ANALYSIS	(1)	EW011437							
*LABORATORY ANALYSTS	(1)	EW011163							
*LABORATORY EQUIPMENT	(9)	EW011199	EW011271	EW011272	EW011273	EW011278	EW011280	EW011281	
		EW011284	EW011544						
*LABORATORY FACILITIES	(1)	EW011456							
*LABORATORY PROCEDURES	(25)	EW011199	EW011271	EW011272	EW011273	EW011275	EW011276	EW011277	
		EW011278	EW011281	EW011282	EW011283	EW011284	EW011285	EW011286	EW011295
		EW011302	EW011304	EW011305	EW011350	EW011356	EW011371	EW011395	EW011470
		EW011534	EW011541						
LABORATORY PROCEDURES	(1)	EW011123							
*LABORATORY QUALITY	(1)	EW011374							
*LAKES	(2)	EW011335	EW011392						
LAKES	(2)	EW011397	EW011402						
*LAND APPLICATION	(8)	EW011202	EW011334	EW011335	EW011380	EW011383	EW011482	EW011551	
		EW011552							
*LAND APPLICATIONS	(1)	EW011553							
*LAND DISPOSAL	(1)	EW011384							
*LANDFILLS	(1)	EW011158							
*LANDSPREADING	(1)	EW011380							
*LAND TREATMENT	(3)	EW011345	EW011552	EW011553					
*LAND USE	(9)	EW011202	EW011206	EW011322	EW011348	EW011352	EW011380	EW011382	
		EW011383	EW011416						
*LANCELIER INDEX	(1)	EW011435							

*LAW	(1)	EW011352							
*LAWS	(1)	EW011369							
*LEACHATE CONTROL	(2)	EW011473	EW011477						
*LEADERSHIP	(5)	EW010801	EW010803	EW011087	EW011090	EW011453			
LEAK DETECTION	(1)	EW011288							
*LEDS	(1)	EW011419							
*LEGISLATION	(7)	EW011026	EW011124	EW011125	EW011126	EW011157	EW011346	EW011377	
*LIABILITY	(2)	EW011124	EW011125						
LIABILITY	(2)	EW011474	EW011483						
LIGHT	(1)	EW011281							
*LININGS	(1)	EW011515							
LITERATURE REVIEWS	(14)	EW011271	EW011272	EW011273	EW011274	EW011275	EW011276	EW011277	
		EW011278	EW011279	EW011281	EW011282	EW011284	EW011285	EW011286	
*LIVESTOCK	(1)	EW011517							
*LOCAL GOVERNMENTS	(1)	EW011307							
*MACHINE CONTROL	(1)	EW011549							
*MAINE	(1)	EW011420							
*MAINTENANCE	(14)	EW011175	EW011176	EW011188	EW011189	EW011190	EW011191	EW011208	
		EW011330	EW011332	EW011439	EW011460	EW011475	EW011510	EW011515	
MAINTENANCE	(2)	EW011492	EW011493						
*MANAGEMENT	(61)	EW010801	EW010803	EW010804	EW011060	EW011088	EW011089	EW011090	
		EW011106	EW011175	EW011176	EW011177	EW011178	EW011184	EW011186	EW011188
		EW011197	EW011205	EW011206	EW011207	EW011208	EW011218	EW011287	EW011292
		EW011303	EW011326	EW011328	EW011337	EW011346	EW011357	EW011361	EW011362
		EW011389	EW011399	EW011404	EW011438	EW011439	EW011441	EW011452	EW011453
		EW011459	EW011460	EW011468	EW011469	EW011473	EW011474	EW011475	EW011476
		EW011477	EW011478	EW011479	EW011487	EW011488	EW011494	EW011498	EW011500
		EW011501	EW011502	EW011514	EW011548	EW011552	EW011553		
MANAGEMENT	(3)	EW011123	EW011482	EW011543					
*MANAGERS	(2)	EW011087	EW011453						
*MANNING EQUATION	(1)	EW011497							
*MANUALS	(13)	EW011199	EW011295	EW011310	EW011318	EW011319	EW011328	EW011379	
		EW011384	EW011389	EW011393	EW011459	EW011530	EW011547		
MAPS	(1)	EW011288							
*MARINE BIOLOGY	(1)	EW011545							
*MARINE ENVIRONMENT	(2)	EW011306	EW011548						

MARINE ENVIRONMENT	(1)	EW011108			
*MARYLAND	(2)	EW011190	EW011491		
*MASSACHUSETTS	(2)	EW011196	EW011460		
*MATERIAL HANDLING	(1)	EW011477			
*MATERIALS DEVELOPMENT	(1)	EW011173			
*MATHEMATICAL APPLICATIONS	(1)	EW011374			
MATHEMATICAL APPLICATIONS	(2)	EW011283	EW011353		
*MATHEMATICS	(1)	EW011353			
*MEASUREMENT	(1)	EW011541			
*MECHANICAL METHODS	(1)	EW011342			
MEETINGS	(1)	EW011278			
METALLURGY	(1)	EW011277			
*METALS	(5)	EW011296	EW011385	EW011501	EW011513 EW011547
METALS	(3)	EW011271	EW011281	EW011313	
METEOROLOGY	(1)	EW011543			
*METER READING	(1)	EW011294			
*METERS	(2)	EW011294	EW011460		
*METHOD STUDIES	(1)	EW011423			
*METHOD 625	(1)	EW011423			
*MEXAMS	(1)	EW011513			
*MICHIGAN	(4)	EW011334	EW011335	EW011362	EW011485
*MICROBIOLOGY	(3)	EW011364	EW011368	EW011498	
MICROBIOLOGY	(2)	EW011159	EW011333		
*MICROCOMPUTERS	(1)	EW011189			
MICROCOMPUTERS	(1)	EW011283			
MICROELECTRONICS	(1)	EW011302			
*MICROORGANISMS	(2)	EW011364	EW011387		
*MINE DRAINAGE	(1)	EW011385			
*MINERALS	(1)	EW011185			
*MINING	(1)	EW011385			
*MINNESOTA	(1)	EW011362			
*MINTEQ	(1)	EW011513			

*MOBILE FACILITIES

(1) EW011456

*MODELS

(21) EW010803 EW011203 EW011204 EW011205 EW011206 EW011207 EW011290
EW011292 EW011297 EW011320 EW011379 EW011389 EW011392 EW011396 EW011455
EW011468 EW011502 EW011513 EW011522 EW011528 EW011529

MODELS

(2) EW011288 EW011291

*MOLLUSCS

(2) EW011545 EW011546

*MONITORING

(18) EW011125 EW011218 EW011295 EW011296 EW011321 EW011322 EW011325
EW011361 EW011383 EW011384 EW011396 EW011420 EW011437 EW011476 EW011478
EW011505 EW011508 EW011552

MONITORING

(6) EW011123 EW011346 EW011474 EW011479 EW011492 EW011544

*MUNICIPAL DISCHARGES

(1) EW011494

*MUNICIPALITIES

(5) EW011060 EW011287 EW011498 EW011499 EW011502

*MUNICIPAL WASTES

(12) EW011339 EW011340 EW011341 EW011342 EW011343 EW011344 EW011345
EW011403 EW011482 EW011483 EW011484 EW011524

*MUSCLE STRAINS

(1) EW011464

*MUTAGENS

(1) EW011524

*NAECLERIA

(1) EW011411

*NATIONWIDE URBAN RUNOFF PROGRAM

(1) EW011301

*NATURAL RESOURCES

(1) EW011060

NATURAL RESOURCES

(1) EW011486

*NEBRASKA

(1) EW011331

*NEEDS ANALYSIS

(1) EW011451

*NETWORK MODELING

(1) EW011291

NEW ENGLAND

(1) EW011160

*NEW HAMPSHIRE

(1) EW011184

NEW HAMPSHIRE

(1) EW011160

*NEW YORK

(2) EW011184 EW011294

*NICKEL

(2) EW011296 EW011427

*NITRATE REMOVAL

(1) EW011324

*NITRATES

(2) EW011324 EW011516

*NITROGEN

(1) EW011508

*NMP

(1) EW011304

*NOCARDIA

(1) EW011441

*NOISE	(1)	EW011504							
*NONCOMPLIANCE	(1)	EW011403							
*NONPOINT SOURCE POLLUTION	(3)	EW010868	EW011157	EW011378					
*NONPOINT SURFACE RUNOFF	(1)	EW011517							
*NORTH CAROLINA	(2)	EW011551	EW011552						
NUCLEAR TECHNOLOGY	(1)	EW011302							
*NUTRIENTS	(2)	EW011335	EW011345						
*OCCUPATIONAL SAFETY	(1)	EW011426							
*OCEAN DISCHARGE	(1)	EW011381							
*OCEAN DISPOSAL	(1)	EW011482							
OCEANOGRAPHY	(1)	EW011545							
*OCEANOLOGY	(2)	EW011375	EW011381						
OCEANS	(1)	EW011397							
*OCSEAP	(1)	EW011543							
ODORS	(1)	EW011202							
*OHIO	(1)	EW011362							
*OIL	(4)	EW011315	EW011481	EW011518	EW011539				
OIL	(1)	EW011376							
*OIL REFINING	(1)	EW011304							
*OIL SHALE	(1)	EW011305							
*OIL SPILLS	(4)	EW011315	EW011348	EW011349	EW011481				
*OMEGA AUTHORIZING SYSTEM	(1)	EW011172							
*ONSITE DISPOSAL	(1)	EW011299							
*ONSITE WASTEWATER SYSTEMS	(1)	EW011307							
*ONSITE WASTEWATER TREATMENT	(3)	EW011299	EW011318	EW011319					
OPERATIONS	(1)	EW011484							
*OPERATIONS (WASTEWATER)	(57)	EW007885	EW007886	EW010323	EW011176	EW011187	EW011188	EW011190	
		EW011208	EW011298	EW011300	EW011307	EW011308	EW011316	EW011318	EW011319
		EW011326	EW011329	EW011330	EW011331	EW011332	EW011334	EW011335	EW011338
		EW011339	EW011340	EW011341	EW011342	EW011343	EW011344	EW011345	EW011356
		EW011357	EW011358	EW011361	EW011362	EW011380	EW011382	EW011383	EW011391
		EW011393	EW011394	EW011398	EW011400	EW011401	EW011438	EW011441	EW011457
		EW011461	EW011489	EW011490	EW011495	EW011527	EW011538	EW011549	EW011551
		EW011552	EW011553						
OPERATIONS (WASTEWATER)	(2)	EW011439	EW011492						
*OPERATIONS (WATER)	(28)	EW007885	EW010323	EW011111	EW011194	EW011195	EW011196	EW011197	

EW011203	EW011204	EW011208	EW011219	EW011290	EW011324	EW011326	EW011330
EW011356	EW011385	EW011386	EW011387	EW011388	EW011393	EW011398	EW011431
EW011433	EW011516	EW011519	EW011520	EW011522			

*OPERATOR CERTIFICATION

(1) EW011432

*OPERATOR TRAINING

(1) EW011440

*ORGANIC CHEMICALS

(3) EW011392 EW011506 EW011507

*ORGANIC CHEMISTRY

(2) EW011275 EW011276

*ORGANIC COMPOUNDS

(4) EW011391 EW011305 EW011350 EW011424

*ORGANIC SOLVENTS

(2) EW011506 EW011507

*ORGANIZATIONAL CHANGE

(1) EW010803

*ORGANIZATIONAL CLIMATE

(1) EW010801

*ORGANIZATION DEVELOPMENT

(2) EW011177 EW011455

*ORGANIZATIONS

(3) EW010803 EW011528 EW011529

*ORGANIZING

(1) EW011452

OVERFLOW POLLUTION

(1) EW011306

*OVERLAND FLOW

(1) EW011382

*OVERVIEW PROCESS

(1) EW011337

*OWNERS

(1) EW011461

OXIDATION

(1) EW011271

*OXIDATION DITCHES

(2) EW011361 EW011407

*OXYGEN

(1) EW011544

*OZONE

(4) EW011316 EW011411 EW011470 EW011519

*PACIFIC NORTHWEST

(1) EW010868

*PAINTS

(1) EW011191

*PAPER INDUSTRY

(1) EW011408

*PAPER MILLS

(1) EW011509

*PASTURES

(1) EW011517

PATHOLOGY

(1) EW011302

*PERFORMANCE EVALUATION

(42) EW010802 EW010862 EW011187 EW011190 EW011194 EW011204 EW011293
 EW011294 EW011299 EW011300 EW011303 EW011316 EW011334 EW011338
 EW011349 EW011357 EW011358 EW011361 EW011362 EW011382 EW011407 EW011409
 EW011410 EW011411 EW011420 EW011431 EW011433 EW011441 EW011458 EW011488
 EW011489 EW011490 EW011492 EW011493 EW011496 EW011515 EW011516 EW011519
 EW011520 EW011536 EW011537

*PERMIT REQUIREMENTS

(1) EW011124

*PERSONNEL

(7) EW011007 EW011008 EW011009 EW011090 EW011163 EW011303 EW011440

*PERSONNEL RATING	(1)	EW011303							
*PESTICIDES	(3)	EW011312	EW011397	EW011423					
PESTICIDES	(2)	EW007885	EW010323						
*PHEASANTS	(1)	EW011523							
*PHOSPHORUS	(1)	EW011300							
*PHYSICAL CHARACTERISTICS	(1)	EW011522							
*PHYSICAL HABITAT SIMULATION SYSTEM	(1)	EW011469							
PHYSICAL PROPERTIES	(1)	EW011424							
*PHYSICAL TREATMENT	(1)	EW011340							
PHYSICAL TREATMENT	(1)	EW011342							
*PILOT PLANTS	(2)	EW011456	EW011516						
PILOT PLANTS	(1)	EW011519							
*PILOT STUDIES	(1)	EW011366							
*PIPE LOOP TESTER	(1)	EW011436							
*PIPES	(6)	EW011434	EW011436	EW011472	EW011496	EW011497	EW011515		
*PLANNING	(27)	EW010801	EW010803	EW011069	EW011089	EW011090	EW011106	EW011175	
		EW011186	EW011200	EW011207	EW011287	EW011289	EW011290	EW011292	EW011293
		EW011320	EW011329	EW011346	EW011372	EW011378	EW011383	EW011404	EW011432
		EW011452	EW011455	EW011466	EW011543				
PLANNING	(1)	EW011492							
*PLANTS	(1)	EW011309							
*PLUMBING	(2)	EW011220	EW011437						
*PLUMBING SYSTEMS	(1)	EW011220							
*POLICIES	(4)	EW011026	EW011060	EW011381	EW011466				
*POLICY	(1)	EW011307							
*POLLUTANTS	(3)	EW011321	EW011395	EW011505					
POLLUTANTS	(1)	EW011419							
*POLLUTION	(2)	EW011501	EW011550						
POLLUTION	(4)	EW011533	EW011534	EW011545	EW011546				
*POLLUTION CONTROL	(7)	EW011323	EW011385	EW011466	EW011471	EW011474	EW011530	EW011539	
POLLUTION MONITORING	(1)	EW011302							
*POLYELECTROLYTES	(1)	EW011393							
*POPULATIONS	(1)	EW011505							
*POPULATION TRENDS	(1)	EW011396							

*POSTSECONDARY EDUCATION	(8) EW011538	EW011167	EW011355	EW011367	EW011464	EW011465	EW011498	EW011500
POSTSECONDARY EDUCATION	(3)	EW007885	EW007886	EW010323				
*POTATO PROCESSING	(1)	EW011495						
*POWER	(1)	EW011090						
*PRECIPITATION	(1)	EW011354						
*PREDICTION	(1)	EW011206						
*PRETREATMENT	(1)	EW011404						
*PREVENTION	(1)	EW011159						
*PREVENTIVE MAINTENANCE	(3)	EW011175	EW011176	EW011330				
*PRIORITY CHEMICALS	(1)	EW011537						
*PRIORITY POLLUTANT MONITORING PROJECT	(1)	EW011301						
*PRIORITY POLLUTANTS	(1)	EW011301						
PRIORITY POLLUTANTS	(1)	EW011419						
*PROBLEM SOLVING	(2)	EW011353	EW011355					
*PROCESS CONTROL	(1)	EW011549						
*PROCESS CONTROLS	(2)	EW011357	EW011358					
*PROGRAM DESCRIPTIONS	(5)	EW011077	EW011178	EW011195	EW011399	EW011400		
*PROGRAM DEVELOPMENT	(1)	EW011452						
*PROGRAM DEVELOPMENT PLANS	(1)	EW011375						
*PROGRAM EVALUATION	(1)	EW011174						
*PROGRAM IMPROVEMENT	(2)	EW011089	EW011090					
*PROJECT ADMINISTRATION	(1)	EW011370						
*PROJECT DEVELOPMENT	(1)	EW011372						
*PROJECT PLANNING	(1)	EW011372						
PROPERTY RIGHTS	(1)	EW011202						
*PUBLIC EDUCATION	(1)	EW011205						
*PUBLIC HEALTH	(8) EW011524	EW011159	EW011325	EW011346	EW011380	EW011421	EW011509	EW011515
*PUBLIC PARTICIPATION	(6)	EW011186	EW011200	EW011346	EW011473	EW011475	EW011476	
PUBLIC PARTICIPATION	(1)	EW010323						
*PULP MILLS	(1)	EW011509						
*PUMP HOUSES	(1)	EW011401						

*PUMPING	(2)	EW011206	EW011210						
*PUMPING STATIONS	(1)	EW011401							
*PUMPING STRATEGIES	(1)	EW011218							
*PUMPING SYSTEMS	(1)	EW011367							
*PUMPS	(3)	EW011349	EW011367	EW011401					
*PUMP STATIONS	(1)	EW011291							
*PURDUE UNIVERSITY	(1)	EW011077							
*PVC PIPE	(1)	EW011496							
*QUALITY CONTROL	(1)	EW011541							
QUALITY CONTROL	(1)	EW007806							
*RADIATION	(2)	EW011312	EW011388						
*RADIONUCLIDES	(1)	EW011388							
*RADIO SHACK	(1)	EW011361							
*RADON	(1)	EW011317							
*RATING SCALES	(1)	EW011163							
*RCRA	(1)	EW011124							
*RECIPROCITY	(1)	EW011440							
*RECLAMATION	(1)	EW011542							
*RECOMMENDATIONS	(9)	EW011188	EW011316	EW011380	EW011381	EW011404	EW011431	EW011492	
		EW011520	EW011537						
*RECORDKEEPING	(1)	EW011219							
*RECORDS	(2)	FW011370	EW011487						
*RECYCLING	(7)	EW011193	EW011320	EW011338	EW011343	EW011405	EW011406	EW011518	
*REFERENCES	(2)	EW011531	EW011532						
REFERENCES	(1)	EW011297							
*REGULATIONS	(13)	EW011026	EW011126	EW011202	EW011307	EW011325	EW011381	EW011384	
		EW011430	EW011471	EW011473	EW011477	EW011480	EW011492		
REGULATIONS	(1)	EW011484							
*REGULATORY AGENCIES	(1)	EW011461							
*REGULATORY REQUIREMENTS	(1)	EW011337							
*REHABILITATION	(2)	EW011189	EW011510						
REHABILITATION	(1)	EW011515							
REMOTE METERS	(1)	EW011460							

*REPORTING	(2)	EW011337	EW011384						
*REPORTS	(5)	EW011370	EW011402	EW011403	EW011531	EW011532			
*RESEARCH	(42)	EW010862	EW010868	EW011218	EW011296	EW011305	EW011309	EW011312	
		EW011315	EW011326	EW011334	EW011335	EW011339	EW011340	EW011341	EW011342
		EW011343	EW011344	EW011345	EW011364	EW011366	EW011368	EW011380	EW011382
		EW011390	EW011397	EW011441	EW011458	EW011471	EW011507	EW011508	EW011509
		EW011513	EW011514	EW011517	EW011518	EW011520	EW011523	EW011524	EW011533
		EW011534	EW011542	EW011544					
RESEARCH	(1)	EW011492							
*RESEARCH DESIGN	(1)	EW011374							
*RESEARCH FACILITIES	(1)	EW011456							
*RESEARCH NEEDS	(4)	EW011312	EW011325	EW011326	EW011514				
*RESEARCH REPORTS	(5)	EW011160	EW011185	EW011317	EW011371	EW011506			
*RESERVOIRS	(4)	EW011203	EW011204	EW011354	EW011392				
RESERVOIRS	(1)	EW011402							
*RESIDUAL SOLIDS	(1)	EW011404							
*RESOURCE NEEDS	(1)	EW011463							
*RETROFITTING	(1)	EW011299							
*REVENUE GENERATION	(1)	EW011328							
*REVERSE FLOW	(1)	EW011450							
*REVERSE OSMOSIS	(3)	EW011111	EW011431	EW011456					
*REVERSE PRESSURE	(1)	EW011450							
*REVIEW PROCEDURES	(1)	EW011306							
*RISK ASSESSMENT	(4)	EW011374	EW011473	EW011476	EW011478				
*RIVERS	(3)	EW011200	EW011392	EW011536					
RIVERS	(1)	EW011397							
*ROOT CONTROL	(1)	EW011190							
*ROOTS	(1)	EW011190							
*ROTATING BIOLOGICAL CONTACTORS	(2)	EW011308	EW011391						
*RURAL AREAS	(2)	EW011318	EW011319						
*SAFETY	(14)	EW011026	EW011123	EW011125	EW011370	EW011426	EW011464	EW011465	
		EW011473	EW011475	EW011476	EW011477	EW011479	EW011481	EW011538	
SALINITY	(1)	EW011545							
*SAMPLE PREPARATION	(1)	EW010862							

*SAMPLING	(12)	EW011174	EW011277	EW011356	EW011357	EW011421	EW011437	EW011473
	EW011475	EW011476	EW011477	EW011541	EW011550			
SAMPLING	(3)	EW011286	EW011419	EW011474				
*SAMPLING WELLS	(1)	EW011550						
*SAND FILTERS	(1)	EW011490						
*SANITATION	(5)	EW011372	EW011416	EW011498	EW011500	EW011504		
SANITATION	(2)	EW011318	EW011319					
*SCHEDULING	(1)	EW011370						
SCIENCE EQUIPMENT	(1)	EW011272						
*SCREENING	(1)	EW011478						
*SCUM	(1)	EW011441						
*SEAFOOD INDUSTRY	(1)	EW011409						
SEARCH STRATEGIES	(1)	EW011283						
*SECONDARY TREATMENT	(2)	EW011308	EW011381					
*SEDIMENTS	(1)	EW011392						
*SEDIMENT TRANSPORT	(1)	EW011379						
*SEED MODEL	(1)	EW011178						
*SELECTION CRITERIA	(1)	EW011172						
*SENSORS	(1)	EW011544						
*SEPTIC TANKS	(1)	EW011299						
*SERATRA	(1)	EW011379						
*SEWAGE	(3)	EW011367	EW011518	EW011524				
*SEWAGE SLUDGE	(1)	EW011193						
*SEWER BLOCKAGE	(1)	EW011190						
*SEWER OVERFLOW	(1)	EW011306						
*SEWERS	(5)	EW011189	EW011190	EW011306	EW011332	EW011510		
SEWERS	(1)	EW011288						
*SEWER SYSTEMS	(1)	EW011189						
*SHALE PROCESS WATER	(1)	EW011305						
*SHIPPING	(1)	EW011369						
*SIMULATIONS	(9)	EW011205	EW011310	EW011311	EW011389	EW011392	EW011468	EW011469
	EW011513	EW011522						
*SITE EVALUATION	(1)	EW011295						

*SITE SELECTION	(3)	EW011348	EW011473	EW011552				
*SITE SURVEYS	(1)	EW011476						
*SKILL DEVELOPMENT	(1)	EW010805						
*SLUDGE	(22)	EW011187	EW011193	EW011338	EW011339	EW011367	EW011380	EW011383
		EW011393	EW011394	EW011404	EW011407	EW011408	EW011482	EW011483
		EW011518	EW011523	EW011524	EW011527	EW011551	EW011552	EW011553
SLUDGE	(1)	EW007886						
*SLUDGE DEWATERING	(1)	EW011408						
*SLUDGE DISPOSAL	(2)	EW011187	EW011377					
SLUDGE RECIRCULATION	(1)	EW011194						
*SLUDGE TREATMENT	(1)	EW011407						
*SOIL	(2)	EW011523	EW011542					
*SOIL-AQUIFER TREATMENT	(1)	EW011405						
*SOIL POLLUTION	(1)	EW011530						
*SOILS	(1)	EW011334						
*SOLAR DISTILLATION	(1)	EW011111						
*SOLID WASTES	(2)	EW011193	EW011504					
*SOLVENT EXTRACTION	(1)	EW011305						
*SOLVENT RECOVERY	(2)	EW011506	EW011507					
*SOLVENTS	(1)	EW011304						
*SOUTH CAROLINA	(1)	EW011293						
*SPECTROPHOTOMETRY	(1)	EW011470						
*SPECTROSCOPY	(6)	EW011278	EW011280	EW011281	EW011282	EW011284	EW011286	
SPECTROSCOPY	(2)	EW011279	EW011283					
*SPILLS	(9)	EW011125	EW011348	EW011349	EW011376	EW011474	EW011479	EW011480
		EW011481	EW011539					
*STANDARD METHODS	(1)	EW011470						
*STANDARDS	(3)	EW011313	EW011427	EW011466				
*STATE CODES	(1)	EW011307						
*STATE MONITORING PROGRAMS	(1)	EW011321						
*STATE PROGRAMS	(1)	EW011402						
*STATE ROLE	(1)	EW011307						
STATE ROLE	(1)	EW011346						
*STATISTICS	(5)	EW011167	EW011169	EW011283	EW011322	EW011374		

*STEAM DISTILLATION	(1)	EW011305						
*STILL-FRAMES	(1)	EW011173						
*STORAGE	(1)	EW011124						
*STORM DRAINAGE	(1)	EW011459						
*STORMWATER	(4)	EW011106	EW011365	EW011389	EW011457			
*STREAMS	(5)	EW011322	EW011354	EW011379	EW011469	EW011536		
STREAMS	(2)	EW011397	EW011402					
*STRESS	(1)	EW011088						
*STRESS MANAGEMENT	(1)	EW011088						
*STRUCTURAL CONCRETE	(1)	EW011327						
*SUBSIDENCE	(1)	EW011206						
*SUPERFUND	(2)	EW011124	EW011473					
*SUPERVISION	(4)	EW010801	EW010802	EW011090	EW011491			
*SUPERVISORS	(4)	EW010802	EW010803	EW011453	EW011491			
*SUPERVISORY BEHAVIOR	(1)	EW010801						
*SUPERVISORY ROLE	(1)	EW010803						
*SUPERVISORY STYLE	(1)	EW010803						
*SURFACE RUNOFF	(11)	EW011106	EW011301	EW011310	EW011311	EW011354	EW011365	EW011389
	EW011457	EW011459	EW011468	EW011517				
*SURFACE WATERS	(1)	EW011335						
*SURVEYS	(11)	EW011185	EW011301	EW011303	EW011317	EW011330	EW011374	EW011380
	EW011431	EW011432	EW011453	EW011461				
*SWINE	(1)	EW011523						
*SYMPOSIA	(7)	EW011339	EW011340	EW011341	EW011342	EW011343	EW011344	EW011345
SYSTEMS ANALYSIS	(1)	EW011291						
*TAIWAN	(1)	EW011207						
*TARP	(1)	EW011401						
*TAXES	(1)	EW011184						
TECHNICAL ASSISTANCE	(1)	EW011492						
TECHNICAL EDUCATION	(1)	EW007886						
*TECHNICAL TRAINING	(1)	EW011451						
*TECHNOLOGY	(18)	EW011193	EW011302	EW011308	EW011318	EW011319	EW011323	EW011326
	EW011344	EW011376	EW011377	EW011391	EW011394	EW011431	EW011476	EW011527

TECHNOLOGY	(3)	EW011542	EW011544	EW011551															
*TELEPROMPTING	(1)		EW007885	EW010323	EW011479														
*TELEVISION	(3)		EW011192																
*TELEVISION PROJECTORS	(1)		EW011077	EW011078	EW011192														
*TEMPERATURE	(3)		EW011078																
TENNESSEE	(1)		EW011203	EW011330	EW011435														
*TERTIARY FILTRATION	(1)		EW011203																
*TERTIARY TREATMENT	(1)		EW011406																
*TESTING	(1)		EW011345																
*TEXAS	(2)		EW011122																
*TOXICITY	(2)		EW011206	EW011287															
*TOXICITY TESTING	(2)		EW011427	EW011509															
*TOXICOLOGY	(1)		EW011122	EW011123															
*TOXIC SUBSTANCES	(17)		EW011505																
			EW011123	EW011126	EW011296	EW011297	EW011309	EW011312	EW011321										
			EW011377	EW011392	EW011478	EW011501	EW011530	EW011531	EW011532	EW011533									
			EW011534	EW011537															
TOXIC SUBSTANCES	(2)		EW011108	EW011159															
*TOXIWASP	(1)		EW011392																
*TOX-SCREEN	(1)		EW011530																
*TRACE ANALYSIS	(2)		EW011167	EW011302															
*TRAINING	(21)		EW010801	EW010802	EW010804	EW010805	EW011026	EW011087	EW011088										
			EW011089	EW011125	EW011177	EW011178	EW011205	EW011290	EW011432	EW011451									
			EW011452	EW011453	EW011454	EW011480	EW011481	EW011491											
TRAINING	(1)		EW011123																
*TRAINING MANUALS	(1)		EW011454																
*TRAINING MODELS	(1)		EW011178																
*TRANSPORT	(1)		EW011158																
*TRANSPORTATION	(2)		EW011124	EW011369															
*TRASH PUMPS	(1)		EW011349																
*TREATMENT	(2)		EW011124	EW011159															
*TRENDS	(5)		EW011078	EW011177	EW011312	EW011402	EW011463												
*TRISHALOMETHANE	(1)		EW011520																
*TRISHALOMETHANES	(1)		EW011519																

*TROUBLESHOOTING	(1)	EW011358							
*TURBIDITY	(1)	EW011386							
*TVA	(1)	EW011203							
*ULTRAVIOLET LIGHT	(1)	EW011316							
*URBAN AREAS	(3)	FW011106	EW011365	EW011543					
*URETHANE	(1)	EW011191							
*USA/USSR SYMPOSIA	(2)	EW011342	EW011343						
*USA/USSR SYMPOSIUM	(5)	EW011339	EW011340	EW011341	EW011344	EW011345			
*USEPA	(3)	EW011329	EW011337	EW011381					
USEPA	(1)	EW011301							
*USER FRIENDLINESS	(1)	EW011172							
*USER GUIDES	(1)	EW011469							
*USER MANUALS	(7)	EW011310	EW011365	EW011379	EW011389	EW011393	EW011468	EW011530	
U.S. NAVY	(1)	EW011323							
*UTILITIES	(7)	EW011186	EW011287	EW011328	EW011386	EW011387	EW011388	EW011487	
UTILITIES	(1)	EW011288							
*VALUES	(1)	EW011461							
*VELOCITY	(1)	EW011497							
VERMONT	(1)	EW011160							
*VIDEODISCS	(1)	EW011173							
*VIDEOTAPE	(1)	EW011464							
*VIDEOTAPES	(1)	EW011465							
VIRGINIA	(1)	EW011160							
*VIRUSES	(1)	EW011199							
*WASTE CLEANUP	(1)	EW011184							
*WASTE DISCHARGES	(1)	EW011375							
*WASTE DISPOSAL	(25)	EW007886	EW011124	EW011158	EW011184	EW011193	EW011202	EW011312	
		EW011339	EW011340	EW011348	EW011375	EW011380	EW011384	EW011390	EW011471
		EW011475	EW011477	EW011478	EW011480	EW011481	EW011482	EW011483	EW011484
		EW011523	EW011524						
WASTE DISPOSAL	(3)	EW007885	EW010323	EW011319					
*WASTE GENERATORS	(1)	EW011184							
*WASTE HEAT	(1)	EW011422							
*WASTE MANAGEMENT	(1)	EW011123							

*WASTE SITES	(4)	EW011475	EW011476	EW011477	EW011539				
WASTE STORAGE	(1)	EW011474							
*WASTE TREATMENT	(4)	EW011475	EW011477	EW011480	EW011509				
WASTE TREATMENT	(1)	EW011474							
*WASTEWATER	(9)	EW010323	EW011199	EW011313	EW011314	EW011320	EW011419	EW011551	
		EW011552	EW011553						
*WASTEWATER COLLECTION	(16)	EW011106	EW011189	EW011190	EW011288	EW011301	EW011310	EW011311	
		EW011332	EW011365	EW011389	EW011401	EW011438	EW011457	EW011459	EW011468
		EW011510							
*WASTEWATER TREATMENT	(90)	EW007855	EW007886	EW010323	EW011026	EW011163	EW011176	EW011186	
		EW011187	EW011188	EW011193	EW011202	EW011208	EW011298	EW011299	EW011300
		EW011307	EW011308	EW011316	EW011318	EW011319	EW011320	EW011323	EW011326
		EW011328	EW011329	EW011330	EW011331	EW011333	EW011334	EW011335	EW011337
		EW011338	EW011339	EW011340	EW011341	EW011342	EW011343	EW011344	EW011345
		EW011356	EW011357	EW011358	EW011361	EW011362	EW011366	EW011367	EW011375
		EW011377	EW011380	EW011381	EW011382	EW011391	EW011393	EW011394	EW011398
		EW011400	EW011402	EW011403	EW011404	EW011405	EW011407	EW011409	EW011410
		EW011420	EW011422	EW011425	EW011438	EW011439	EW011440	EW011441	EW011461
		EW011468	EW011471	EW011487	EW011489	EW011490	EW011491	EW011492	EW011493
		EW011495	EW011499	EW011500	EW011509	EW011523	EW011527	EW011538	EW011549
		EW011551	EW011552	EW011553					
WASTEWATER TREATMENT	(2)	EW011494	EW011510						
*WATER	(12)	EW011199	EW011277	EW011315	EW011321	EW011352	EW011379	EW011392	
		EW011416	EW011435	EW011469	EW011472	EW011504			
WATER	(3)	EW007885	EW010323	EW011320					
*WATER ANALYSIS	(2)	EW011350	EW011371						
*WATER CONSERVATION	(3)	EW011196	EW011299	EW011458					
WATER CONSERVATION	(2)	EW011318	EW011319						
*WATER COSTS	(1)	EW011060							
*WATER DEMAND	(2)	EW011205	EW011289						
*WATER DEMANDS	(1)	EW011502							
*WATER DISTRIBUTION	(16)	EW011219	EW011289	EW011291	EW011292	EW011293	EW011294	EW011352	
		EW011399	EW011434	EW011436	EW011437	EW011449	EW011450	EW011515	EW011522
		EW011547							
*WATER DIVERSION	(1)	EW011352							
*WATER FLOW	(1)	EW011204							
*WATER INDUSTRY	(1)	EW011026							
*WATER LAW	(1)	EW011352							

*WATER LOSS	(2)	EW011399	EW011460						
*WATER METERS	(2)	EW011294	EW011460						
*WATER NEEDS	(1)	EW011196							
*WATER OUTFLOW	(1)	EW011203							
*WATER PIPES	(4)	EW011434	EW011496	EW011515	EW011547				
*WATER POLLUTION	(8)	EW011126	EW011309	EW011395	EW011396	EW011397	EW011530	EW011533	
		EW011534							
WATER POLLUTION	(3)	EW007805	EW007886	EW010323					
*WATER POLLUTION CONTROL	(19)	EW011150	EW011218	EW011306	EW011322	EW011325	EW011348	EW011377	
		EW011378	EW011381	EW011385	EW011401	EW011424	EW011425	EW011449	EW011450
		EW011466	EW011485	EW011486	EW011501				
WATER POLLUTION CONTROL	(3)	EW011479	EW011506	EW011507					
*WATER QUALITY	(41)	EW007885	EW010323	EW010862	EW010868	EW011060	EW011106	EW011157	
		EW011158	EW011160	EW011199	EW011203	EW011218	EW011301	EW011304	EW011305
		EW011312	EW011317	EW011321	EW011334	EW011335	EW011338	EW011346	EW011350
		EW011364	EW011371	EW011378	EW011384	EW011390	EW011395	EW011402	EW011405
		EW011437	EW011463	EW011486	EW011494	EW011500	EW011501	EW011513	EW011514
		EW011517	EW011550						
WATER QUALITY	(1)	EW007886							
*WATER RECHARGE	(1)	EW011185							
*WATER RECLAMATION	(1)	EW011406							
*WATER RENOVATION	(1)	EW011499							
*WATER RESOURCES	(30)	EW007885	EW007886	EW010323	EW011060	EW011157	EW011158	EW011185	
		EW011196	EW011200	EW011203	EW011204	EW011205	EW011207	EW011218	EW011289
		EW011338	EW011343	EW011346	EW011352	EW011368	EW011406	EW011463	EW011485
		EW011486	EW011499	EW011500	EW011502	EW011536	EW011542	EW011550	
WATER RESOURCES	(2)	EW011354	EW011494						
*WATER REUSE	(9)	EW011320	EW011338	EW011343	EW011405	EW011406	EW011410	EW011498	
		EW011499	EW011542						
WATERSHEDS	(1)	EW010868							
*WATER STORAGE	(1)	EW011468							
*WATER SUPPLY	(15)	EW011060	EW011157	EW011196	EW011205	EW011289	EW011320	EW011324	
		EW011372	EW011416	EW011437	EW011458	EW011460	EW011463	EW011486	EW011522
*WATER SYSTEMS	(5)	EW011288	EW011290	EW011292	EW011293	EW011294			
WATER SYSTEMS	(1)	EW011291							
*WATER TANKS	(1)	EW011191							
*WATER TREATMENT	(47)	EW007885	EW010323	EW010862	EW011111	EW011163	EW011194	EW011195	
		EW011196	EW011197	EW011208	EW011289	EW011317	EW011324	EW011325	EW011326
		EW011330	EW011333	EW011352	EW011356	EW011368	EW011385	EW011386	EW011387
		EW011388	EW011393	EW011398	EW011411	EW011421	EW011422	EW011424	EW011430
		EW011431	EW011432	EW011433	EW011435	EW011436	EW011437	EW011440	EW011456

WATER TREATMENT

*WATER USE

WATER USE

*WEED CONTROL

*WELDING

*WETLANDS

*WISCONSIN

WISCONSIN

EW011487	EW011498	EW011500	EW011501	EW011516	EW011519	EW011520	EW011547
(1)	EW011159						
(5)	EW011205	EW011338	EW011458	EW011460	EW011494		
(1)	EW011543						
(1)	EW011514						
(1)	EW011426						
(4)	EW011314	EW011551	EW011552	EW011553			
(4)	EW011332	EW011362	EW011400	EW011439			
(1)	EW011515						